PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 17, 1887.

ORIGINAL ADDRESS.

ON THE COLLECTIVE INVESTIGATION OF DISEASE.

From the Inaugural Address of the President of the Ninth International Medical Congress,

PROF. NATHAN S. DAVIS, M.D., LL.D.,

Of Chicago.

[At the opening of his address the orator paid a warm tribute to the memory of one who should have filled the place now occupied by the speaker, Professor Austin Flint, M.D., LL.D., of New York, whose untimely death was an irreparable loss to the whole profession of medicine. Dr. Davis then proceeded to speak of the benefits of medical organization, and then took up the subject of the Collective Investigation of Disease, as follows:]

EVERY experienced and intelligent practitioner of the healing art is familiar with the fact that all acute general diseases are influenced in their prevalence and severity by seasons of the year, topographical and other conditions of the earth, meteorological conditions of the atmosphere, and the social condition and habits of the people themselves. The most familiar endemics vary annually in the same localities; while the great epidemics that have for ages broken over the comparatively limited boundaries of their habitats only at intervals of years, and extended their ravages from country to country and receded again to the source from which they apparently originated, differ widely in the different periods of their prevalence. But in studying the essential causes of any one of these general diseases and the laws and conditions under which such causes operate, he soon finds certain factors, essential for the solution of his problems, wanting.

For instance, if he wishes to identify the date of the first attack of epidemic cholera in a given locality, and the character of bowel affections immediately preceding, the ordinary statistics of mortality will give him only the date of death, which may have been from one to seven days later, or it may have been preceded by one or more cases that ended in recovery. If he is anxious to determine the reason why the disease, on entering one community, develops with such rapidity that in a few days its victims are found in every grade of the population and in almost every street, while in another it develops slowly, adhering persistently to particular classes or localities, he may find, in the ordinary meteorological records, the thermometric, barometric, and hygrometric conditions of the atmosphere, with the direction and the velocity of the winds, but he finds nothing regarding those important though variable elements known as ozone and hydrogen peroxide, active oxidizers; or those nitrogenous products called free and albuminoid ammonia. Neither do the sanitary records give the desired information concerning the composition and impregnations of the soil, or of the organic and inorganic emanations that may arise therefrom.

An adequate knowledge of these absent factors relating to the condition of the earth, air, and water over districts large enough to embrace localities subject to invasions of the epidemics and others known to be exempt through a sufficient length of time to cover several periods of prevalence and periods of absence alike, is essential for enabling us to comprehend the causes that make one district amenable to the prevalence of a disease and another not, as well as the marked differences in the severity and mode of progress of the same disease at different periods in the same localities and same classes of the people. The same additional knowledge would also furnish the basis for further sanitary measures of the greatest practical value.

And yet it must be obvious that the cooperation of numbers of medical men directly engaged in the field of general practice with others possessed of more practical facilities for chemical and microscopical research is necessary for successfully prosecuting such coincident and continuous investigations as would be likely to secure the desired results. Only well-trained general practitioners in every locality chosen for observation could observe and record the date of the initial symptoms of acute general diseases coming under their notice, and at stated intervals collate and report them to a central committee. The daily observations concerning the presence and relative proportion of active oxidizers and of nitrogenous organic elements in the atmosphere and the water would require the selection of one or two experts in chemical and microscopical re-

search for each locality, all making their observations coincidently in time and by uniform methods.

There are included in the organized medical associations of each country the men and materials necessary for prosecuting every well-defined line of inquiry; and these associations, by their stated meetings and their facilities for intercommunication and concert of action, present the entire machinery needed, and are only waiting for well-planned and systematic use.

The tendency to make the permanent medical organizations available for prosecuting work in the directions I have indicated has already been manifested to a limited extent, as may be seen in the formation of the Collective Investigation Committee of the British Medical Association and of the International Collective Investigation Committee, organized during the sitting of the Eighth International Congress at Copenhagen.

An earlier movement more fully of the character I have been endeavoring to explain was made by the American Medical Association in 1875, when a standing committee was appointed to establish in a sufficient number of localities regular coincident daily observations and records concerning all appreciable meteorological conditions, including organic and inorganic elements found in the atmosphere, and the date of beginning of acute general diseases, and report the results at each annual meeting of the Association. The Committee made reports embodying facts of interest and permanent value in 1877, in 1879, in 1881, in 1882, and in 1883.* The latter report contains, among other items, a complete tabulated statement of the free and albuminoid ammonia in the atmosphere for every day in the year ending August 31, 1883, as determined for the Committee by Professor J. H. Long in connection with the laboratory of the Chicago Medical College. The Committee is still prosecuting its work with material in hand for a still more important report at an early day. The greatest difficulty encountered has been to enlist a sufficient number of active practitioners in each locality who would faithfully record the desired clinical facts and report the results to the Committee. But this and all other obstacles can be overcome by persevering and well-directed work.

I trust no apology is needed for having embraced this occasion to attract your attention to the very important question how to make all our medical associations more useful in promoting the science of medicine by more complete methods of investigation, especially in directions where the coincident action of several persons in different places is essential for success.

I fully appreciate the great benefit resulting from the simple mingling of large numbers of medical men in social contact, where each is made to hear constantly, whether on the street, in the hotel, or in the assembly-room, new suggestions, new modes of expression, and to observe the physical and mental effects of the various habits and customs of the different peoples, until each one leaves the general gathering with largely increased mental activity and resources, as was so happily expressed by Sir James Paget in his address to the Congress of 1881, in London. And I appreciate in a still higher degree the benefits derived from the preparation and reading of papers by individuals and the discussion of important questions in all our assemblies.

But, for reasons I have already briefly stated, I hope to see added in every permanent general medical society two standing committees: to one should be referred for critical examination every communication claiming to embody a new discovery in either the science or art of medicine, and the other should be charged with the work of devising such lines of investigation for developing additional knowledge as require the co-operation of different individuals, and perhaps societies, and of superintending their efficient execution until crowned with success.

If ten or twenty per cent. of the money paid for initiation and membership dues by the members of each society were appropriated and judiciously expended in the prosecution of such systematic and continuous investigations from year to year, it would accomplish more in advancing medical science directly, and indirectly in benefiting the human race, than ten times that amount would accomplish if expended in any other direction.

* Trans. of the Am. Med. Assoc., vol. xxvi. p. 125; xxviii. p. 153; xxx. pp. 38, 147; xxxii. p. 481; xxxiii. p. 43; Jour. of the Am. Med. Assoc., vol. ii. pp. 85, 169.

For it must be remembered that when money is expended for material objects, even for food, clothing, or medicine, such materials feed, clothe, or relieve but one set of needy individuals, and are themselves consumed; but the expenditure of money and time in such a way as to develop a new fact capable of practical application either in preventing, alleviating, or curing disease, that *fact* does not, like the food or medicine, perish with the using, but it becomes literally imperishable. Neither are its benefits limited to one set of individuals, but it is transmitted with the speed of the lightning over the land and under the sea to every civilized people; and whatever benefits it is capable of conferring are as capable of being applied to a million as to one, and of being repeated with increasing efficiency from generation to generation.

It has been tersely and correctly stated that associated action constitutes the characteristic and predominating power of the age in which we live. It is by associated action that education in its broadest sense, religion, and civilization have been more rapidly diffused among the masses of mankind during the present century than during any other period of the world's history. It is by the association of capital, wielded by the associated intellects of the nineteenth century, that highways of commerce have been opened over the valleys, through the mountains, across the deserts, and on the oceans, over some of which the material productions of the nations are borne by the resistless power of steam, and along others the products of mental action are moved with the speed of electric currents, until both time and space are so far nullified that the most distant nations have become neighbors, and the inhabitants hold daily converse with each other from opposite sides of the globe. Indeed, it is only by means of such of these highways as have been constructed within the memory of him who addresses you that you have been gathered in this hall from the four quarters of the earth, and through which an account of your doings may be daily transmitted to your most distant homes.

I congratulate you on the fact that the profession you represent has taken the lead of all other professions or classes of men in rendering available these grand material achievements of the age for cultivating fraternal relations, developing and interchanging knowledge, and planning concerted action for rendering human life everywhere healthier, happier, and of longer duration.

This is the ninth grand International Congress in regular series within little more than two decades, and let us hope that all its work will not only be done in harmony and good order, but with such results as will add much to the aggregate of human happiness through all the coming generations.

Without trespassing further on your patience, I must ask your forbearance with my own imperfect qualifications and your generous assistance in the discharge of the responsible duties you have devolved upon me.

ORIGINAL COMMUNICATIONS.

THE TREATMENT OF PULMONARY PHTHISIS.

Read before the Medical Society of the State of Pennsylvania, at its Thirty-Eighth Annual Meeting, held at Bedford, Pennsylvania, June 30, 1887.

BY WILLIAM F. WAUGH, A.M., M.D.,

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THE present year has been prolific in remedies for the cure of phthisis. The discovery of Koch, revolutionizing our ideas of etiology, has been followed by an endeavor to readjust therapeutics in order to make it harmonize with the new pathology. As might have been expected, the first attempts were crude and fanciful, based on mistaken notions of the true import of the new teaching, showing that the profession had not yet had time to fully mature their ideas so as to make legitimate deductions therefrom. If there be one fact which above all others is taught by history, it is the exceeding slowness of the human mind in grasping a truth and pushing it to its legitimate deductions. We may rest assured that every possible wrong road will be tried before the right one is hit upon.

The most recent of all the new remedies proposed is the hypodermic use of calcium phosphite, the object being to favor the calcification of the tuberculous masses. As the lacto-phosphate of lime is taken up in large quantities from the alimentary canal, there seems little reason for using it hypodermically. No proof had yet been ad-

duced that the ingestion of lime salts hastens calcification. The true value of these agents is in increasing the strength of the cell-wall, preventing hemorrhage, sweating, and other sources of danger and waste, rather than in causing calcification of tubercular deposits.

Two French observers have been testing the power of various agents to delay the progress of tuberculosis artificially produced. Of all the drugs tried, they found none which gave as good results as tannic acid. Rabbits to which this remedy was administered resisted the effects of the disease much longer than animals to whom the tannin had not been given.

The interference with the digestion which tannin causes, the short time for which it can be administered without injury, and its objectionable local effects, render this drug unsuitable for such a chronic disease as phthisis. Still, it is a step in the right direction, aiming to increase the resisting power of the tissues rather than to destroy the bacilli by a germicidal action.

The treatment by hypodermic injections of corrosive sublimate is only mentioned to express the wonder how any physician can be found who is familiar with germicides, and yet believes that the one-fiftieth of a grain of corrosive sublimate injected under the skin at a distance from the lungs can have any influence upon microbes in these organs.

The Russians have still more recently advised the use of aniline. They claim that very dilute solutions of aniline are destructive to the tubercle-bacillus, and that the body can be saturated with aniline to the requisite degree. In this connection, it is well to remember that antifebrine, which has proved remarkably effectual in combating the fever of phthisis, is transformed into aniline in the human body, and if given continuously for a short period imparts a blue coloration to the body, which, however, is but temporary. This remedy deserves a careful trial. The highly poisonous nature of aniline must not be forgotten, and the effects on the general health of saturating the whole system to the extent necessary to destroy the disease-germs could hardly fail to be injurious. Whether the disease or the remedy be the worse remains to be shown.

For several months the French journals have teemed with papers upon the hypodermic use of various remedies suspended in liquid vaseline. Of all the agents tested, those which have given the best results are iodine and carbolic acid. Of the latter, from fifteen to twenty-three grains are injected daily. This enormous dose is said to be borne without inconvenience. The liquid vaseline used as a vehicle is obtained from Baku. It is said that the American petroleum contains no such body, but this I am assured is a mistake. The Russian vaseline, when perfectly pure, has proved the best vehicle yet introduced for hypodermic use; the French physicians having injected over a pound of it beneath the skin of a horse without the least irritation ensuing. As to the value of this method, it appears unlikely that the introduction of these remedies at a distance from the seat of the disease would prove as effective as when applied directly by the atomizer or by intra-pulmonary injection.

It seems singular that this method, which is so popular in France, attracts scarcely a passing notice here.

The germicidal methods are intended for tubercular cases alone, and would be obviously out of place in chronic pneumonia, fibroid lung, etc., which constitute the larger proportion of cases of consumption. The iodine and phenol injections have been found very useful in chronic bronchitis, but in true tuberculosis it is admitted that notwithstanding the general improvement which follows their use the bacilli continue to be found in the sputa.

One of the first attempts to base the treatment of phthisis on the bacillar pathology was that of Cantani. Claiming that there exists an antagonism between decomposition-germs and tubercle-bacilli, he sought to introduce, by atomization, a pure culture of bacterium termo into the air-passages, in the hope that this lusty auxiliary would meet, conquer, and execute capital punishment upon the intruding bacillus, and thus rid the lungs of his presence. Cases are not wanting in which benefit is claimed from this procedure.

The premises from which this method is deduced are far too vague, and contain too much which is yet unproved, to warrant our putting any more faith in the method than what can be based on experience with it. We first assume that phthisis is due to the tubercle-bacilli,—which is true in but a limited proportion of cases, for we may still quote approvingly the sage re-

mark of Felix von Niemeyer, that the greatest danger to a consumptive is that he may become tuberculous. Next, it is not fairly proved that any such antagonism exists between bacterium termo and the tubercle-bacillus. Third, it is highly probable that the bacterium termo is a worse enemy than the microbe it is supposed to antagonize.

In a late number of the *Philadelphia Medical Times* I have recorded a case of accidental infection of the pulmonary tract with the germs of decomposition. The symptoms which resulted were strikingly similar to those of acute phthisis, and up to the present time have resisted every effort to effect a cure.

Taken all in all, we may say that this method, based on the most flimsy interpretation of the modern germ-theory, may be dismissed from serious consideration until its distinguished author has given us better reasons for its adoption than have yet appeared.

But what of the method of Bergeon,—the renowned rectal inflation by carbonic and sulphydric acids?

Introduced by the proprietors of a mineral spring whose waters contained the ingredients mentioned, the method has received the enthusiastic endorsement of the surgical-instrument manufacturers. Under their skilful management, coupled with the wide-spread desire for a remedy for consumption which, by its singularity, seems to give a hope of success such as has never crowned the ordinary methods, this has become popular to the extent of a craze.

It is not wanting in able advocates in the profession. We are informed by hosts of observers that under the use of these gases the patient gains strength, puts on flesh, the night-sweats cease, the fever falls, the cough lessens, the appetite returns, and despair gives way to hope in the patient's mind!

To one who is an experienced observer of consumptive cases, and who has lived long enough to have seen the rise and fall of successive cures, there is an indescribable pathos in these words. Some of you may recollect that when Bennett introduced cod-liver oil he claimed that it checked the sweats, lessened the fever, restored the strength, improved the appetite, etc. We have not forgotten that when the hypophosphites were brought out they were heralded by the same hopeful expressions. And throughout the long list of new remedies the same claims are put forward. Each is an improvement on all that preceded it; each makes a new epoch in the treatment of consumption.

If this be true, if to the results obtainable from all previously-known agents we add the effects claimed by Bennett for cod-liver oil, by Churchill for the phosphites, elevate our patient still higher with Chaulmoogra oil, harden his tissues by tanning them, preserve him with carbolic hypodermics, impregnate the air he breathes with eucalyptol, gorge him like a Strasburg goose by Debove's method, and, finally, inflate him with gas,—if we continue to pile upon him every successive improvement, where will he land? Will his sweat-glands become finally hermetically sealed, his appetite rival that of the Dragon of Wantley, his weight wax greater until he make Fat Bessie envious, and his strength render him a new Hercules? Or will he not rather, in spite of all our efforts, march steadily down to join the innumerable throngs who have preceded him to the consumptive's grave?

We know that there is not a symptom of consumption which cannot be alleviated. We can check the sweats by agaricine, by atropia, by lacto-phosphate of lime, by a dozen other means; we can control diarrhœa by silver, zinc, and bismuth; we can soothe the cough by opiates, relieve the dyspnœa by quebracho, restore the appetite by acids, and, in a word, can successfully cope with every individual symptom. And, in spite of all, the phthisis marches steadily, relentlessly forward. No, gentlemen, the effects of these successive so-called cures for consumption are not cumulative,—they are identical. They differ in their action upon the various symptoms, but nine-tenths of their true effect is upon the patient's mind. The *modus operandi* is as follows. The physician reads that Professor Blank has discovered a cure for consumption whose effects are truly wonderful. Others try the new remedy, and verify the glowing accounts of the discoverer. The doctor catches the enthusiasm: gets the remedy and takes it to his patient, telling of its marvellous virtues. The genuine hope of the physician awakens that of the patient. The effects expected so ardently soon show themselves, and for a while all goes on swimmingly—until the first failure.

Do we ever succeed so well with a remedy after that first failure? How sure we were that oxalate of cerium was a certain remedy for the vomiting of pregnancy until that fatal first failure; since when it has become useless, the patient reading doubt in our own eyes!

But notwithstanding my lack of faith in it, I have given the method of Bergeon a trial; for I hold that there is a grain of truth at the bottom of every popular delusion, and to obtain this grain of truth it may be worth while to winnow away the bushel of chaff.

Three cases of phthisis (tubercular) have been treated under my supervision by the rectal inflations. I am sorry to say that in no case has there been any perceptible improvement. In one case of advanced phthisis the progress of the disease became much more rapid, but I think this would have been the case had no treatment been instituted.

In a case of suppuration of the cervical glands, with ulcers on both legs, but no lung-disease, rectal injections of carbonic acid alone had a surprising effect. This case had resisted all previous efforts, and was rapidly failing until the gas was used. Each injection was followed in the course of an hour by the occurrence of a ravenous appetite; the food was digested, and the patient's improvement was rapid.

In a case of uterine cancer the gas has not shown any such invigorating power.

These few experiments indicate what I believe will be the final dictum on the subject: that the gas will prove useful as a tonic measure and as an anæsthetic in relieving the cough and dyspnœa of phthisis, but that it will not cure a single case of bacillar consumption.

The use of sulphuretted hydrogen appears to be dangerous and unnecessary. Dupont states that Bergeon himself has given it up, concluding that the good effects are due solely to the carbonic acid. Dupont also calls attention to the fact that these good effects are not so marked as those he has described some years since as following the inhalation of carbonic acid mingled with oxygen. Moreover, by this method he administered as much as one hundred and fifty litres of gas each day, whereas by rectal injection not more than six litres can be used. When the sulphuretted hydrogen is omitted, the effect sought is no longer that of a germicide, but simply a tonic and anæsthetic one, as no other power resides in the carbonic acid.

To conclude, I must express my belief that the results of this treatment will not differ much from those alluded to in the remark of an old patient who had been drinking blood. When I asked him how he was affected by it, he answered that it did him a world of good, and would have eventually cured him, but he got too weak to go to the slaughter-house after it.

Though a thorough believer in the modern germ-theory, I look for greater success in prolonging life and rendering it comfortable by carefully preserving the forces, by checking waste, especially from fever, by maintaining the digestion, and by surrounding the patient with suitable climatic and hygienic conditions, than by any patent, ready methods whatever.

REPORT ON RECENT PROGRESS IN GYNÆCOLOGY AND OBSTETRICS.

BY W. H. H. GITHENS, M.D.

RENAL AFFECTIONS, ECLAMPSIA, ETC., OF PREGNANCY AND LABOR.

A. F. A. KING, M.D., of Washington, D.C., in the *American Journal of Obstetrics*, publishes an article giving a novel and reasonable explanation of the causation of the renal disorders and eclampsia complicating pregnancy. The cases he especially considers are those occurring, for the most part, in primiparous women during the latter months of pregnancy, which usually begin with œdematous swelling of the feet, face, and hands, with or without general anasarca, attended by scanty and high-colored albuminous urine, containing renal epithelium, tube-casts, and blood-corpuscles, and which sooner or later may develop headache, gastralgia, nausea, vomiting, derangements of the special senses, and the usual phenomena of uræmia, ending, if not relieved, in eclampsia, premature delivery, etc., and sometimes in death of both child and mother.

Disturbances in the renal circulation and functions are produced chiefly by pressure of the gravid uterus upon the abdominal aorta or its branches, or upon the vena cava or its branches, or all of these, *in consequence of the child and womb not maintaining during pregnancy their normal lateral obliquity above the pelvic brim.*

The normal attitude of the child before labor begins *is the dorso-anterior position of an oblique presentation* (commonly, inexactly, and erroneously termed a "transverse" presentation). A head-presentation, as this expression is usually meant to imply presentation of the head "towards the centre of the canal of the pelvis and os uteri," with the long axis of the child parallel with the axis of the plane of the pelvic brim, is abnormal during pregnancy.

The normal position of the gravid uterus during the latter months of pregnancy, before labor begins, is the lateral oblique, corresponding with the oblique position of the child, the fundus uteri containing the pelvic extremity of the fœtus being usually directed towards the right side of the lumbar vertebræ: this being due to the shape of the organ conforming to the shape of its contents; the os and cervix may still be found, on vaginal examination, with but little or no lateral deviation from the median line.

When the womb and child have risen from the pelvic cavity into the abdominal cavity, they should so remain until the advent of labor. The pelvic canal is chiefly the *channel of exit,* and no part of the child should again enter it until it is ready to go out and be born; while the abdominal cavity above the brim is the *cavern of residence.* These statements apply to primiparæ as well as to multiparæ, and the author joins issue with those "high authorities" who teach that it is normal for the fœtal head in the former to "descend into the pelvic cavity three months before full term," calling this descent the *second* stage in the "mechanism of labor." Can it be that this "second step" *normally* occurs in primiparæ three months before it is time for labor to begin? He believes the oblique presentation, with the lower end of the fœtus resting upon an iliac fossa, to be normal in both.

Just before the end of pregnancy the uterine contractions premonitory of actual labor serve to alter the long axes of womb and child from their oblique position, and bring them sufficiently in line with the axis of the plane of the superior strait to allow the lower end of the fœtal ovoid to slip off the cushioned ledge of the iliac fossa on which it has reposed and commence its descent into the pelvic cavity. This change in the position of the child is probably one of the direct exciting causes of labor.

When the womb and child maintain during pregnancy their normal lateral obliquity, the canal of the cervix, from the external to the internal os, will remain until full term unobliterated, which is the normal condition for both primiparæ and multiparæ.

When the normal obliquity of womb and child is maintained during pregnancy, there will be no injurious compression upon any blood-vessels. So long as the child remains poised obliquely above and across the pelvic brim, certainly nothing below the brim will be compressed; nor will the fundus reach high enough to touch the renal blood-vessels which lie on the second lumbar vertebra. That part of the child and womb in contact with the lower lumbar vertebræ will contain no hard part by which injurious compression of the aorta or iliac arteries could be made; and the head of the child will tend to glide away from the woman's spine, away from the aorta and iliac vessels.

When, on the contrary, the womb and fœtus maintain a vertical position,—that is, with their long axes in line with the axis of the plane of the pelvic brim,—they are continually crowded for space by their abdominal surroundings, and the direction of this crowding is chiefly downwards and backwards towards the lumbar spine and the blood-vessels that lie upon it, finally compelling the lower segment of the womb to descend prematurely into the pelvic cavity.

Dr. King assumes that pressure of the gravid womb upon the aorta, vena cava, and their branches will produce renal disorder. Another factor is compression of the ureters by the gravid womb.

Œdema and venous congestion of the lower extremities is the best evidence of venous obstruction higher up; hemorrhoids, varicose veins, and thrombi of the vulva are additional evidence. Aortic compression would be indicated by tension of the arterial system above the obstruction, as shown by tension of the radial pulse, which is especially pronounced in uræmic cases.

In cases with albuminuria, nephritis, and uræmia, the convulsions occur in the same way as they do in males suffering

from uræmia consequent upon Bright's disease. Cases with but little or no albuminuria or kidney-trouble, but in which albuminuria may be increased by the convulsions, are explicable upon the "uterine irritation" theory of Tyler Smith, who maintained that true puerperal convulsions were produced by centric or peripheral irritation of the spinal system of nerves; pregnancy, labor, or the puerperal state being recognized causes of such an irritation. An abnormal position of the uterus and fœtus, with premature obliteration of the cervix, premature distention of the cervical canal and lower uterine segment, with thinning of its muscular wall and tearing of its decidua, and premature descent of the lower end of the fœtal ovoid below the pelvic brim, are amply sufficient to account for the uterine irritation which Tyler Smith conceived to be the peripheral exciter of convulsions, even when there was but little or no renal disturbance; and in such cases the convulsions would be increased in strength and frequency during labor.

The causes of the abnormal position of the uterus and contents are tight dress, corsets, coitus, and abnormal postures,—resting the hands and forearms above the abdomen, bending forward when standing or walking.

Dr. King has searched very widely through the attainable obstetric records for facts and figures bearing for and against his theory, and has made out a very strong argument in its favor. His method of treatment follows naturally from the supposed cause. In cases of albuminuria or anasarcous limbs or congestive headache the first requisite is to discover and correct any abnormal position of the womb and fœtus, securing a transverse or oblique position of the head above the brim of the pelvis by manipulation or posture, alone or combined, and correcting errors in dress, posture, and habits.

ETIOLOGY, PATHOLOGY, AND CLASSIFICATION OF SALPINGITIS.

In the proceedings of the Gynæcological Society of Chicago, December, 1886, appears a letter from M. Sänger, M.D., of Leipsic, on this subject. There must necessarily be as many forms of pelvic abscess as there are forms of disease of the Fallopian tubes. In the classification given by him (*Archiv f. Gynaek.*, Bd. xxv. pp. 126–33) six different forms are recognized.

The whole sexual tract, from the ring of the hymen to the ostium tubæ abdominale, is open to the entrance of the external air and the germs suspended in it. Carriers of infection coming from the abdominal cavity and its contained organs may also enter at the ostium tubæ abdominale. Even microbes originally lodged in the external parts may, by way of the lymphatics, reach the peritoneal cavity, and thence gain entrance into the tubes.

It has been clearly proved that pathogenous micro-organisms pass from the external parts to the tubes and the peritoneal cavity. These organisms have, in part, been accurately studied, and it is well known that different kinds produce distinct forms of salpingitis, and, secondarily, pelveo-peritonitis. Our present knowledge of the above-mentioned pathogenous micro-organisms will enable us to divide them into three groups:

1st. A.—*Salpingitis gonorrhœica*, produced by the gonococcus of Neisser.

B.—*Salpingitis tuberculosa*, produced by the bacillus tuberculosis of Koch.

C.—*Salpingitis actinomycotica*, produced by the actinomyces bovis of Bollinger.

The gonorrhœal form is most frequently met with. This fact was clinically established by Noeggerath as early as 1872. It is never followed by a destructive suppuration of the uterine appendages; it remains invariably a disease of the surfaces of the mucous and serous membranes. The pus formed by the specifically-diseased mucous membrane gradually distends the tube. In one class of cases the tube is transformed into a large sac, with thin walls; in another, where the muscular tissue of the tube is hypertrophied to a greater extent, the tube becomes much thickened and rigid. In most cases the uterine portion of the tube is thickened, the abdominal end dilated. The serous surfaces become pus-secreting surfaces only where gonorrhœal pus has escaped from the tubes and infected them. He does not believe that gonorrhœal pus ever penetrates the walls of the tubes, and thus produces serous inflammations; but a specific inflammation of the mucous membrane of the tube is accompanied by a non-specific inflammation of the whole tubal wall. This may excite perisalpingitis, etc., and the organs involved may become adherent

to each other; but we never meet with a purulent exudate of the same nature as that found in the cavity of the tube. In some instances gonorrhœal disease of the uterine appendages is accompanied by severe and violent symptoms resembling those of a peritonitis following perforation. In these cases gonorrhœal pus escapes through the ostium abdominale into the peritoneal cavity. In other cases the peritonitis develops insidiously, the peritoneal inflammation being non-specific in character.

Salpingitis tuberculosa has been fully described in Alfred Hegar's lately-published work, "Entstehung, Diagnose und chirurgische Behandlung der Genitaltuberculose des Weibes."

Salpingitis actinomycotica has been described by Adolph Zemann (*Medicin. Jahrbücher der K. K. Gesellsch. der Aerzte in Wien*, 1883, p. 477, Case 4). The tubes in this case were dilated and filled with pus and clumps of the actinomyces.

Group 2d, Salpingitis septica (pyemica, ichorosa, purulenta, diphtheritica).—It simply means that the inflammation is due to infection by a septic virus. The microbes of puerperal septicæmia are identical with those producing traumatic infection in general. During the puerperium the genital tract is far more susceptible to infection than at other times. All suppuration is due to the action of microbes; several varieties have been closely studied, but they are not all known. In this second group the rapidity of the development of the constitutional symptoms and the malignancy of their course may almost entirely obscure the local disturbance of the genital tract.

Group 3d. Forms of infectious salpingitis produced by specific, but as yet unknown, microbes, *Salpingitis syphilitica.* (*Medical Record*, January 24 and February 7, 1885, by Gill Wylie; and Bouchard and Lépine, *Gazette Méd. de Paris*, No. 41, 1866.) We occasionally find in young girls who have never had intercourse with man, tubes filled with pus, and pelveo-peritonitis. These may be tuberculous or gonorrhœal in origin. One case is related in which the tubal disease was consequent on a retro-typhlitis. Certain infectious diseases, like typhoid fever, scarlatina, variola, cholera, also may invade the genital tract.

EXTRA-UTERINE PREGNANCY SUCCESSFULLY TREATED BY ELECTRICITY.

Two cases of extra-uterine pregnancy treated by electricity with a successful result were reported by Dr. Harrison at the meeting of the Obstetrical Society of New York, February 15, 1887. The pregnancies were of about ten and thirteen weeks respectively.

TRUE HERMAPHRODITISM.

At the same meeting Dr. Fowler presented a wax cast of the pelvic organs of a true hermaphrodite who died at the age of twenty-seven years. Ovaries, Fallopian tubes, uterus, penis, and testicles were all present. Menstruation and urination were through the penis.

TRANSLATIONS.

EVOLUTIONARY STAGES OF THE CELLS OF THE STOMACH.—At a recent meeting of the Paris Biological Society, MM. Pilliet and Trelat described their researches on the different evolutionary stadia of the cells of the cardiac extremity of the stomach. The glandular cells of the cardiac extremity of the stomach are of two kinds. The principal cells are small, cubic, and transparent, and occupy the lower part of the glands; the bordering cells are especially numerous in the centre and neck of the glands. There is a tendency nowadays to consider these two kinds of cells, so distinct in appearance, as different stadia of one element, and the preparations the author described and showed drawings of apparently confirm this view. In the fœtus the inner surface of the stomach is covered with one single kind of cubic cells.

Laskowsky (1868) and E. Brand (1877) stated long ago that in a pig's stomach the differentiation of the two orders of cells is manifest at a much later period (Baginsky 1882, Coudereau 1883). In fish, reptiles, and birds—that is to say, in a large number of species—there exists only one kind of cells in the portion which corresponds physiologically with the cardia of the stomach. These are large and granular. They resemble the bordering cells; nevertheless, have a similar behavior when submitted to the influence of reagents as that of the two kinds of cells found in the upper vertebræ, and consequently constitute a third kind, a mixed kind; their resemblance to the gastric gland has yet to be determined. On a fœtus of a horse of

thirty-five centimetres, the mucosa is raised by large club-shaped folds of areolar connective tissue containing large voluminous capillaries. These folds describe regular villosities and very high ones. The epithelium is composed of prismatic cells ranged in one row; they present a large nucleus and granular protoplasma. There are not any calceiform cells on the surface, nor any differentiated cells at the bottom of the culs-de-sac. The aspect presented is rather that of the intestine than that of the stomach, and this in an animal of considerable size. By an incision made on a level with the lower stomach of a pig's fœtus weighing sixteen centimetres, the peritoneum was found to be composed of fusiform cells closely pressed together; then comes the external muscular layer in the form of a thin covering, of which the lengthened nuclei are of a considerable size as compared with the cellular body. The internal muscular layer is much more developed, and its most inward layer has a tendency to become divided in two; a certain number of its bundles approach the chorion in order to constitute the first rudiments of the mucous muscular layer.

The chorion of the mucous membrane presents irregular conical points; these are separated. The epithelium is composed of cubic cells with large nuclei, occupying almost the whole cell; it is clear, and presents several punctiform nucleoli. These cubic cells, ranged in one row, are limited by a thin cuticle with a double outline. On the stomach of an adult pig, the *pharocothere* treated with alcohol and hæmatoxylin, the evolution of the cells of the gastric gland could be followed through the different stages; it is in the middle of the tubes that the most varied types are to be met with. Each canal is lined with a row of cubic cells with large ovoid nuclei, which present several nucleoli. These cells are pressed against each other, sometimes in a mass in which the cellular outline becomes indistinct. In the centre of the canal is a considerable space. Immediately outside the investment lining of cubic cells and almost continuous with them are the bordering cells, arranged at the periphery and slightly projecting.

But the following fact, which allows of connecting the different cells together, may be observed. A certain number of the principal cells are enclosed in a cytoplasmic granular body, and are intermediary to the cubic cells with hardly any cellular body which are in the centre of the tube, and to the bordering cells which are outside them. All the forms of transition are found here, but it is only in these cells and in the axial cells that ovoid or lengthened nuclei are observed. These cells in developing press back the external wall of the gland, so that each cell, round or oval, provided with lateral expansions fixing it to the wall occupies a little box-shaped enclosure situated on the external side of the glandular tube. It is the series of these small nodosities which gives to the isolated gland its moniliform aspect. In certain places there is most frequently only one cell in each small diverticulum. But sometimes there are several; those at the entrance of the neck of the little enclosure belong to the intermediary stage, and are in continuation with the investment lining of the principal cells. Around each diverticulum are large membranous cells, which compose the connecting cellular lining of the glands. There is no special vascular system, as the capillaries ascend between the glands.

MM. Pilliet's and Trelat's data concerning the formation of the bordering cells very nearly agree with those of Garel (1877), Toldt (1881), Schwale (1878), Ph. Stolz (1882), Kölliker (1882). What becomes of these elements?

These cells present all their characteristic granulations grouped in a special manner round the periphery of the element, leaving a clear space between them and the nucleus. The nuclei in a series of cells, regarded from this point of view, present all the degrees of atrophy up to the complete disappearance of the nucleus. At the same time the granulations of considerable size at the beginning are replaced by much finer grains which absorb the clear space above mentioned and invade the whole cell, which is considerably shrunk. In these small enclosures which contract there are also a certain number of thin granular masses, which gradually disappear. At the same time that this evolution is accomplished inside on a given point in the tube, it also takes place in the whole length of the same tube; the principal cells being considerably more frequent at the bottom of the cuticle sac, and the bordering cells at the neck of the glands. In the pyloric portion, on the

contrary, the glands, more ramified, only present one kind of cells; and in the animal now studied they offer the greatest analogy with the principal cells at the bottom of the glands; those of the neck undergo in part the mucous transformation. In short, the principal cells on these parts may be seen by gradual evolution to resemble the condition of the bordering cells at the same time as they retreat from the axis of the glandular canal; they become atrophied on the spot, but do not then fall into the stomach. (Researches made at the Laboratoire des travaux pratiques de la Faculté.)

IODOL AS AN ANTISEPTIC DRESSING FOR WOUNDS AND FOR INTERNAL USE.—M. le Docteur Assaky, Professeur agrégé des Facultés de médecine de France, Professeur de Clinique Chirurgicale à la Faculté de Bucharest, read a paper at the recent International Congress, of which the following are the conclusions:

I. Wounds unite under iodol by first intention. This union, however, being the result of various and complex conditions attending the operation, it is not possible to attribute to iodol alone the absence of suppuration and inflammatory conditions. In wounds which gape and suppurate, iodol is an excellent antiseptic. It retards suppuration, renders the discharges inodorous, reduces the frequency of dressing, and considerably hastens cicatrization. In ulcerating or gangrenous wounds, iodol aids to resist the destructive process, and changes the wound, after a variable time, to a healthy granulating condition. This action of iodol extends also to hard chancres. In case of soft chancres the result is variable. Sometimes it transforms them into a simple granulating wound; at others it is insufficient for this purpose, and it becomes necessary to employ antiseptic lotions in addition.

The same is true with reference to open venereal buboes of the groin. The powdered iodol has this advantage over iodoform, that it is free from odor and is not toxic in its effects.

II. Doses of iodol of from 0.40 centigrammes to two grammes daily produce no functional trouble, even if continued a long time.

These doses give marvellous results in tertiary syphilis and in scrofulous affections. In the secondary stage of syphilis, taken internally, it rapidly destroys the syphilitic manifestations. Iodol seems to aid the general nutrition and increases strength and flesh. It is indicated in all cases of specific malnutrition.

Iodol is an antipyretic. In acute infectious diseases, such as erysipelas, etc., it causes a rapid fall of temperature.

SPERMATORRHŒA.—Sinety (*Journal de Médecine de Paris*):

℞ Extract of belladonna, 20 centigrammes;
Powdered belladonna, 20 centigrammes;
Confection of roses, q. s. M.
Divide into ten pills.

In nocturnal spermatorrhœa resulting from spasm of the seminal vesicles, the patient must take, at bedtime, from one to three pills, taking the whole dose at once; or he may take five centigrammes of camphor or ten centigrammes of lupulin or one drachm of bromide of potash daily. If, on the contrary, there be atony of the seminal vesicles, injections of cold water and cold douches of ten to twenty seconds' duration are indicated. In addition, morning and evening, ten centigrammes of freshly-powdered ergot and two centigrammes powdered nux vomica are administered. Friction over the lumbar region and internal surface of the thighs with spirits of camphor is beneficial.—*Canadian Practitioner.*

TEMPERANCE BY "SUGGESTION."—One of the phenomena which characterize that curious condition known as "hypnotism" is the passive obedience yielded by the subject of experiment to the commands—or, rather, suggestions—of the operator. It is sufficient for the latter to "suggest" that the person under its influence can or cannot do a certain thing, to confer or withdraw the power. This fact is utilized by itinerant showmen for the sake of the irresistibly comic effects to which it can easily be made to give rise. One of the latest applications of this occult power exercised by the mesmerizer over his victim is reported from Soissons, in France, where a local drunkard was inhibited from indulgence in his customary beverages, to the great benefit of himself and the joy of his friends. Possibly the temperance cause may find in hypnotism a valuable ally, but it is probable that the influence of such a salutary suggestion does not last as long as might be desired in the interest of the subject to be reformed.—*British Med. Jour.*

THE American Gynæcological Association held its annual meeting in New York during the past week, Dr. A. J. C. Skene, of Brooklyn, presiding. The meeting was of unusual interest from the fact of the presence of a number of foreign visitors who had been attending the International Medical Congress.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 17, 1887.

EDITORIAL.

ANNOUNCEMENT BY THE PUBLISHERS.

DRS. FRANK WOODBURY and WILLIAM F. WAUGH having purchased the *Philadelphia Medical Times*, it will be continued by them after the present issue.

J. B. LIPPINCOTT COMPANY.

PHILADELPHIA, September 17, 1887.

The J. B. Lippincott Company having transferred to us the ownership and goodwill of this journal, at the beginning of the eighteenth volume, we propose to take advantage of the change to give it a new dress and to introduce other improvements which we think will be acceptable to our readers, while scrupulously maintaining the high standard hitherto established by the publishers. These changes will be referred to more explicitly in the next issue.

FRANK WOODBURY, M.D.,
WILLIAM F. WAUGH, A.M., M.D.,
Editors and Publishers.

THE MEETING OF THE INTERNATIONAL MEDICAL CONGRESS.

IN a note which appeared in the editorial columns of this journal nearly two years ago (October 31, 1885) it was stated that "we believe (1) that a successful and thoroughly creditable meeting of the International Medical Congress will be held in Washington in 1887; (2) that, in spite of malcontents and irreconcilables, existing difficulties will be successfully surmounted under the guidance of Drs. Flint and Davis and the Executive Committee; (3) that a way will be provided for those gentlemen who resigned under a misapprehension to return and accept the offices to which they were originally nominated; (4) that several aspiring Hamlets will be absent when the final cast is made for the play, and they will not be missed."

At the time that those words were penned the prospects for an American International Medical Congress were dark indeed; but our faith did not waver, because it was founded upon the intelligence and patriotic sentiment of the medical profession of this great country. The attempt made by certain men to capture the Congress in the interest of a few Eastern medical schools, and to divide all the offices between themselves and their friends, was, happily, thwarted by the American Medical Association at New Orleans, the members of which emphatically expressed their disapproval of the course taken by men whose prominence in the profession only made their conduct the more reprehensible. To this disagreeable incident we shall not again refer. The Congress is over, and we simply desire to mention the fact that our prediction has been verified. It was not only successful and thoroughly creditable, but it was, according to President Davis, the largest International Medical Congress which has yet been held, if the number be taken of those who came from outside of the city in which its sessions were held. The attendance was so unexpectedly large—there being over two thousand seven hundred names upon the registration-book—that the Entertainment Committee, during the first part of the week, was evidently somewhat embarrassed; but all difficulties were smoothed over later in the week, and every visitor left with the most pleasant impressions of the Congress, and fully satisfied with the work of the Executive and Entertainment Committees.

With regard to the scientific proceedings of the Congress, Sir James Grant

declares that they will compare favorably, in point of number and intrinsic value, with those of any previous meeting of the Congress. Critics who think otherwise will do well to wait until the "Proceedings" have been published; they will appear about the 1st of next year.

One of the novel incidents of the Congress was the publication of a daily edition of the *Medical Register*, of Philadelphia, reporting the proceedings of the eighteen sections and the general session of each day. Such an evidence of American energy, undertaken out of compliment to the Congress, should not be allowed to pass without special mention.

THE PHARMACOLOGY OF SOME BODIES DERIVED FROM MORPHINE.

ONE of the most interesting papers read before the Section on Therapeutics and Materia Medica of the Ninth International Congress was one on the pharmacology of some bodies derived from morphine, by D. B. Dott, F.R.S.E., and Ralph Stockman, M.D., and presented by the latter. The relationship between chemical constitution and physiological action must always be a subject of deep interest to the pharmacologist. In the communication just mentioned the authors discuss briefly the action of a few of the substitution products of morphine as compared with that of the original alkaloid.

How was one of the first chemists who attempted to modify the constitution of alkaloids by acting on them with other bodies. He treated morphine with methyl iodide (CH_3I), and obtained a crystalline body which he named hydriodate of methyl-morphia. This substance he regarded as being formed by the substitution of methyl (CH_3) for one atom of hydrogen (H) in the morphine molecule. In the light of our present chemical knowledge we know that it is not a substitution product, but an addition product, and that the methyl iodide is simply added on to the morphine.

It seems doubtful, indeed, if such bodies are to be considered as morphine compounds. They are more probably new alkaloids. Fraser and Crum Brown examined the physiological action of these morphine bodies, among others, and found that they had a curare-like action. From the nomenclature which they adopt, it is evident that these observers regarded the bodies which they investigated as addition and not as substitution products. Notwithstanding this, we find that in all reference- and text-books which treat of the subject these bodies are spoken of as obtained by substitution, and the opinion is generally held that the substitution of methyl for hydrogen in an alkaloid causes the latter to assume in all cases the action of curare.

There is, however, a great difference both in chemical constitution and physiological action between the addition body ($C_{17}H_{19}NO_3,CH_3I$) and the substitution body $C_{17}H_{18}(CH_3)NO_3$, independently of the iodine contained in the former. As a preliminary, it is necessary to say a few words about morphine itself. It has the formula $C_{17}H_{19}NO_3$, but is better written $C_{17}H_{17}NO.(OH)_2$, containing thus two hydroxyl molecules. It has been repeatedly shown that it is the hydrogen atoms in these hydroxyls which are most easily replaced by such radicals as methyl (CH_3), ethyl (C_2H_5), and acetyl C_2H_3O).

As regards the action of morphine on frogs, two stages, roughly speaking, may be distinguished with doses of thirty to fifty milligrammes. The first stage is characterized by narcosis, the second by tetanus.

In mammalia the second stage is not so easily observed, as the animal generally dies from failure of respiration before its supervention. If artificial respiration be employed, however, the tetanus is permitted to develop fully.

The first body which our authors considered was methyl-morphine, $C_{17}H_{18}(CH_3)NO_3$. It has long been known that codeine prepared from opium had a formula which entitled it to be regarded as methyl-morphine. It was not until 1881, however, that it was prepared artificially from morphine by Grimaux. He showed that methyl-morphine is similar, chemically, to codeine prepared from opium. They prepared this body practically by the same method as Grimaux used, and found that its physiological action is exactly similar to that of codeine as described by Schroeder and others. That is to say, that while in frogs and mammalia it readily induced narcosis, its tendency to cause tetanus was very much greater than that of morphine. It is a much more poisonous substance than the last-named alkaloid, and causes, in a much higher degree, disagreeable symptoms of vomiting and diarrhœa.

Ethyl-morphine, $C_{17}H_{18}(C_2H_5)NO_3$, has exactly the same action as methyl-morphine. It is, therefore, quite immaterial, as regards physiological action, whether the hydrogen atom in morphine be replaced by ethyl or by methyl.

Acetyl-morphine, $C_{17}H_{18}(C_2H_3O)NO_3$, and diacetyl-morphine, $C_{17}H_{17}(C_2H_3O)_2NO_3$, were also examined, and were found to have the same action, qualitatively, as the preceding bodies. They are, however, considerably more powerful, both as narcotics and tetanizers. When administered to dogs, the distress, vomiting, and diarrhœa which were produced were all very extreme.

Dimethyl-morphine was also formed, but at the present time they are hardly in a position to say which H atoms are substituted by the two methyl molecules. Its action differs so entirely from that of diacetyl-morphine that they inferred that different changes had occurred. It was found to be a muscle-poison, resembling saponin somewhat in its mode of action, and to have no narcotic effect, or very little.

From what has been said, it is evident that none of these bodies are to be preferred, clinically, to morphine. With the exception of dimethyl-morphine, they are all more poisonous, and, judged by their action on dogs, possess in a very high degree the tendency to produce nausea and other disagreeable symptoms.

LEADING ARTICLE.

THE GUIDING PRINCIPLES OF TREATMENT IN EXCESSIVE CORPULENCE.

(Continued from page 801.)

A MARKED tendency to overproduction of fat occurs in persons of diminished nervous irritability. Individuals of the so-called "nervous temperament" rarely get fat. On the contrary, those of a phlegmatic type are especially prone to excessive adipose accumulation. Melancholia and "depression of spirits" are not infrequent causes of obesity. This did not escape the acute observation of Shakespeare, who makes Falstaff say,—

"A plague of sighing and grief! it blows up a man like a bladder."

It is probable, however, that in this individual case sack had more to do with Falstaff's fatness than sighing and grief.

The corpulency of alcohol- and beer-drinkers is well known. It is likely that the depression of nervous excitability due to the constant use of alcohol is partly responsible for the fat-accumulation, although the alcohol in ardent spirits, and in the case of beer the carbo-hydrates additionally present, acting as respiratory food, save a portion of the fat in the food from oxidation and permit its deposit as fat-tissue. Although fleshy beer-drinkers are said in popular parlance to be "bloated," meaning by that a defective or inferior kind of fat, there is no evidence that their adipose tissue differs in quality from that produced by other causes.

Many physicians seem to consider corpulence as merely of cosmetic importance to the individual. This is by no means the true state of the case, for the obese subject is exposed to many discomforts

and dangers which his leaner neighbor escapes.

The discomforts of corpulence are sluggishness of movement due to the increased weight of the body, fatigue on slight exertion, hyperidrosis (which is often a troublesome symptom and frequently complicated with intertrigo and eczema), shortness of breath (produced by excessive accumulation of fat in the abdomen and consequent interference with the free motions of the diaphragm), and weakness and rapidity of the pulse. In young women there is often amenorrhœa. The latter is usually a consequence and not a precedent condition of corpulence. Fat married women are frequently sterile, and in both sexes there is depressed sexual desire.

The more dangerous conditions dependent upon or associated with corpulence are fatty accumulation around the heart interfering with its free action, fatty degeneration of the muscular structure of the heart, angina pectoris, chronic endarteritis and its consequences, arterio-sclerosis, and apoplexies which not infrequently result in death. There is often fatty infiltration or degeneration of the voluntary muscles, and of the glandular organs, such as the liver and pancreas. The tendency to the development of diabetes and to the eruption of boils and carbuncles is well known. Some observers, among whom are especially to be mentioned Meckel and Wunderlich, have noticed a pronounced predisposition to cancer in corpulent persons, but this is denied by Kisch. The writer would suggest that sarcoma is much more liable to occur in the corpulent than carcinoma. The former confusion of sarcoma and carcinoma may have given rise to the opinions of Wunderlich and Meckel.

It is an observation as old as Hippocrates that corpulent persons bear febrile diseases badly. The infectious diseases, especially typhoid and pneumonic fevers, give a very unfavorable prognosis in obese patients. The danger may be in great measure ascribed to the difficulty of keeping down the temperature in such individuals. The thick fat-cushion prevents loss of heat by the surface. Active antipyretic treatment is urgently indicated in corpulent fever-patients.

The theory that fat is principally the product of carbo-hydrate food is the basis for most of the methods of treating corpulence by regulation of the diet. The best known of these methods is that prescribed by Dr. W. Harvey for a patient by the name of Banting, who was so pleased with the good results in his case that he afterwards published the details of the method in a pamphlet. The Banting diet consists in a large excess of proteids, and great diminution, almost to extinction from the bill of fare, of fat and carbohydrates. On the theory that proteids alone are muscle-builders, while fats and carbo-hydrates are fat-forming foods, the Banting diet was correct, but the evils of a strict adherence to it were manifest before the recent physiological researches demonstrated the fallacies of the theory. There can be no doubt that Bantingism will reduce excessive fatness, but it also decreases the proteid constituents of the tissues, and may thus cause dangerous and even fatal consequences. It is frequently impossible to arrest the rapid waste of muscular tissue under the Banting diet, and the individual rapidly declines in health, even if the diet is withdrawn and the patient put on liberal allowance. Heart-failure and great general weakness are also quite frequent, and Dr. Fothergill attributes to Bantingism a tendency to the development of lithiasis, with its bad consequences.

On account of the evil results which were frequently noticed as following the strict Banting diet, this has been modified in various ways. Vogel, who introduced the method in Germany, allowed a larger proportion of carbo-hydrates, while Immermann proposes to interrupt the treatment occasionally and allow the patients to resume their habitual diet for a period. On the other hand, Cantani, the eminent Italian clinician, insists even more strongly than Banting upon the rigid exclusion of fats and carbo-hydrates. Beer, spirits, and the stronger wines are restricted or excluded from all dietaries for corpulence. Light acid wines are alone allowed.

In the last five years two new methods, deviating in a rational direction from Bantingism, have attracted the attention of the profession. The first is that of Professor Ebstein, of Göttingen, who proposes a reduction of proteids and carbohydrates and an increase of fat. The philosophical reasoning of Ebstein claims careful consideration, since he bases it upon acknowledged physiological facts. He claims that less fat is deposited if there

is much fat in the food than if the food contained an equivalent quantity of carbohydrates. Practical experience sustains this claim, as well as the further one that a smaller proportion of proteids suffices than is generally assumed. But an important point insisted upon by Ebstein is usually overlooked by his followers: namely, that active muscular exercise assists in the destruction of fats. It is in this single point that Ebstein's method presents the greatest advance over Bantingism.

Oertel's method, which has also many earnest advocates, approaches in its dietetic prescriptions very closely the Banting system, as will be shown presently by a comparison of the different classes of food-materials in the various plans; but an important element in Oertel's regimen is the extremely small quantity of fluids permitted. This is not original with Oertel, as Dancel had already in 1863 insisted upon its importance.

Oertel believes that many of the discomforts of corpulence—to a great degree the corpulence itself—are due to an overfilling of the venous system, and that in consequence the heart is overburdened, the circulation retarded, and tissue-metabolism diminished. In addition, an excessive development of the finer vascular apparatus gives opportunity for the increased accumulation or deposit of fat. Now, by reducing the amount of water or other liquid consumed, the distention of the venous system is relieved,* the heart is allowed to act more forcibly, promoting oxidation and thus consumption of fat-tissue, and areas of small blood-vessels are obliterated, thus limiting new deposit of fat. The deprivation of fluids is also an essential part of the treatment which was successfully recommended by Dr. Schwenninger to Prince Bismarck a few years ago, and which was the occasion of an unfortunate ethical scandal in Berlin. The Schwenninger cure does not differ materially from that recommended by Oertel. Active out-door exercise is also an important part of Oertel's method.

Professor Kisch, of Prague, who is resident physician at the famous sulphate-of-soda springs of Marienbad, has had a very large experience in the treatment of corpulence. He prescribes the waters (which act as a purgative), advises active exercise, and regulates the diet. Doubtless good results follow this treatment, for it is based upon rational principles. The treatment by cold baths and exercise is also successfully applied for the relief of this condition by Winternitz, of Vienna.

Directly contrary to the advice of Oertel to reduce the fluid allowance of corpulent patients, Sée, of Paris, largely increases it. "Let your patients drink,—drink all the time," is the advice he gives. He thinks tea the best beverage, and that it should be consumed in large quantities. This practice is based upon the fact that free drinking of water promotes tissue-metabolism, and hence increases the oxidation of the fat, as pointed out by Landois. The tea renders the water more palatable, and likewise acts as a nervous stimulant.

There is abundant testimony that all these methods are efficient for the reduction of corpulence. In view of the variation of the special dietaries from one another, as well as from the standard diet calculated by the physiologists, there is reason to believe that the effect is not dependent upon the diet alone, but that the collateral regimen, such as the exercise and culture of the skin, has something to do with the result. Voit's standard diet for an average-sized man doing moderate work consists of one hundred and eighteen grammes of proteids, fifty grammes of fat, and five hundred grammes of carbo-hydrates. For comparison, the following calculations of the amounts of the various food-stuffs in the Banting, Ebstein, and Oertel diets are given:

	Banting.	Ebstein.	Oertel.
Proteids.....	170–180 grms.	105 grms.	156–170 grms.
Fats.....	7.5 grms.	60–100 grms.	22–43 grms.
Carbo-hydrates	80–85 grms.	45–50 grms.	71–114 grms.

Landois recommends a gradual and equable reduction of the entire bill of fare, with active exercise in the open air, purgation, cool bathing, stimulation of the skin, restricted hours of sleep, light clothing, and free consumption of liquids. There is reason to believe that such a regimen is more efficient and safer, even if not so rapid in its action, than a plan which depends principally upon the withdrawal of one or other class of food-materials.

Regarding the form of exercise to be taken, much latitude may be allowed. Walking, which is the most generally attainable, is efficient and usually agreeable. Horseback-riding and boating are more ex-

* See an article by Salzer, "The Irritable and the Depressed Heart," *Philadelphia Medical Times*, Nos. 504, 505.

pensive, while bicycling is not devoid of danger to a heavy-weight. Wood-chopping is an excellent means of toning up muscles as well as burning up fat, and the examples of Horace Greeley and Gladstone show that it can be indulged in without loss of dignity.

In prescribing exercise to a corpulent patient, too much should not be expected in the beginning. The muscles have probably long been unused to active contraction, are infiltrated with fat, and rapidly wearied. The new life must be acquired gradually. Early rising, a cold bath, a short but brisk walk, followed by a bath and a spare breakfast, will, if daily repeated, soon drive from the patient his languor and melancholy humor. The after-dinner nap will after a struggle be left off entirely, especially if the dinner be not too abundant or varied. Food should be plain, well cooked, and inviting. It adds nothing to the effectiveness of the treatment if the table has an uninviting appearance. Fats may be used in moderation, but all saccharine substances, beer, ale, or porter, strong wines, and saccharine vegetables should be used very sparingly. They need not be excluded from the diet-list entirely. As a cardiac stimulant a little whiskey and water or a glass of claret, hock, or hard cider may be taken occasionally if needed, although coffee and tea will usually answer the purpose well enough.

The main thing for corpulent persons is, however, active exercise. This, if persistently carried out, will not merely reduce weight, but restore health and strength, which a pure diet-cure often fails to do.

But, after all is said, the management of the individual case must be left to the judgment and discretion of the physician. Corpulent patients differ as widely as temperaments and noses. Some cases will require ferruginous tonics, others cardiac stimulants, still others remedies addressed to prominent complications. Hyperidrosis, eczema, diabetes, dyspnœa, palpitation of the heart, dyspepsias, renal troubles, need attention. In few morbid conditions is careful attention to such details rewarded by better results than in corpulence.

Both the patient and his allowance should be weighed regularly at weekly intervals, in order that the effect of the treatment may be constantly gauged.

GEORGE H. ROHÉ, M.D.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

BACKWARD STATE OF THERAPEUTICS AND PHARMACOLOGY IN THE UNITED KINGDOM—STROPHANTHUS—TREATMENT OF TINNITUS AURIUM—ELECTROLYSIS IN THE TREATMENT OF TUMORS AND STRICTURES—OPERATIVE TREATMENT OF BRONCHIECTASIS—MEN AS NURSES—PATHOLOGICAL DEMONSTRATIONS AT THE DUBLIN MEETING OF THE BRITISH MEDICAL ASSOCIATION—COLOR-BLINDNESS—DEATHS OF M. PASTEUR'S PATIENTS, ETC.

A QUESTION of very great importance for the future of medicine in this country was raised by Dr. Whitla's address as President of the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association in Dublin. The address was, in fact, an admission that the study of these subjects in this country is in a most unsatisfactory state. Dr. Whitla thinks that what we most want at present is not more new remedies, but a better and more precise knowledge of those already in our hands. However this may be, it is unfortunately true that the work done in this country, whether in the discovery of new remedies or the more complete investigation of old, is very small in amount. The Vivisection Act, which prohibits the performance of experiments upon animals except under restrictions which, in their practical operation, prevent most physicians from making such experiments, is undoubtedly responsible for some of our deficiencies. More weight may be attached to the want of properly-equipped laboratories wherein investigators could work. The general result is that we have grown accustomed to look abroad—to Germany, France, and recently also to America—for nine-tenths of our information with regard to the pharmacology of new and old drugs. But we have not the same excuse for our supineness in the study of therapeutics; and it is upon this fault that Dr. Whitla insisted with much energy. He proposes that the British Medical Association should organize a system by which the experience daily accumulated by hosts of observers should be focussed, sifted, and arranged, and that in particular reports should be invited upon certain chosen drugs. There will be many difficulties in the way of carrying out such a scheme, as Dr. Whitla truly perceives, but his answer to all objections is the paramount importance of the subject and the vital character of the questions or problems to be investigated. There will probably be no lack of volunteers, and the committee which he proposes, if it ever gets to work, might do much good by directing the energies of willing workers into profitable channels. The thera-

peutic literature published in this country is not only small in quantity, but is not, as a general rule, of high excellence. If, that is to say, the term therapeutics may be for a moment limited in meaning, so as to include only the application of drugs to the treatment of disease, no candid observer would accuse us of being behindhand either in surgical methods or in the application of those more general agencies which include the personal hygiene and dietary of the sick. Another proof of the stirring of men's minds in this matter is afforded by the formation of a therapeutical society, which will have its home in London. Dr. Sydney Ringer, F.R.S., has consented to become the first president.

The papers read in the Therapeutic Section after Dr. Whitla's address did not contain many novelties. Dr. Quinlan had a paper on Strophanthus, and exhibited some young growing plants struck by W. T. Christy, the well-known drug-merchant. Dr. Quinlan said that the best thing which strophanthus could accomplish was to strengthen a heart enfeebled by continued pyrexia; in typhoid fever, with a tendency to cardiac failure, he had found it a valuable cardiac tonic. In heart-disease its effect was too transient.

In a discussion on Tinnitus Aurium, in the Otology Subsection, Dr. Woakes, who recommended hydrobromic acid some years ago in pulsating tinnitus, stated that the remedy was only of use in that particular class of cases, and its use indiscriminately for all classes of tinnitus would lead to disappointment. Dr. Lennox Browne referred to the diagnostic value of the observation of Dr. Dundas Grant, that when the tinnitus was due to disease of the middle ear it was diminished by making pressure on the carotid. Dr. Barr believed that hypodermic injections of pilocarpine were of use in certain cases; those, namely, in which the tinnitus was due to recent and minute hemorrhages into the labyrinth. He also spoke highly of Lucal's *Tonbehandlung*. This consists in applying a tuning-fork to the external meatus, sounding a note of an opposite character to the noise heard in the ear. For a hissing noise a low-pitched tuning-fork is used; for a humming or bell note, a high-pitched fork.

Your readers are probably already familiar with Dr. Apostoli's novel and, from a pathological point of view, extremely interesting method of treating fibroid tumors of the uterus by electrolysis. The essential point in it is that he has found it practicable to use very strong currents, going up even to two hundred and fifty milliampères. The internal pole is a platinum sound introduced into the uterus, or a platinum trocar pushed into the substance of the tumor. The external pole is a large mass of wet potter's-earth or modelling-clay enclosed in coarse tarlatan and moulded to the surface of the abdomen; in this way the high resistance which the skin offers to the passage of the electric current is overcome. When the uterine pole is made positive, the result of the passage of the current is to check hemorrhage, and to transform a soft, bleeding surface into a firm and dense membrane; when it is made negative, the result is a dissolution of the contiguous tissues and a profound modification in the nutrition of the diseased tissues.

Dr. W. E. Steavenson, physician-in-charge of the electrical department of St. Bartholomew's Hospital, who has had considerable success in the use of electrolysis, was, I believe, the first in England to take up the method, in conjunction with Mr. Bruce Clarke, for the treatment of urethral stricture. He has now, working with Mr. Walter H. Jessop, applied the method to the treatment of stenosis of the lachrymal duct. A metallic probe was passed through the constricted part of the canal and connected with the negative pole of the battery; the positive pole was placed on the arm. The current used was of the strength of four or five milliampères: it was applied for about thirty seconds at each sitting, with very favorable results.

It should be generally recognized that strong currents must be administered with great care, especially when applied, as in this case, in the neighborhood of the base of the brain: even when every precaution is taken, the patient may suffer from faintness, giddiness, and other unpleasant symptoms.

Professor Grainger Stewart, of Edinburgh, has reported a case of bronchiectasis with very offensive bronchorrhœa in a young man aged 27. The usual remedies having entirely failed, and the stench being so offensive as to render the patient's life intolerable, the aid of surgery was called in. Mr. Caird inserted an aspirator-needle, and obtained a thick, purulent fluid. He then made an incision, resected two ribs, and established free drainage. The immediate result was that the temperature fell, there was a total disappearance of the offensive odor, and the patient's general condition and appearance improved much. The drainage-tube was still *in situ* when the report was made, but the condition of the patient was very much improved.

An interesting paper on male nurses for men was read at the Dublin meeting of the British Medical Association by Surgeon-General C. A. Gordon, C.B., Honorary Physician to Her Majesty the Queen. He advocated the employment of men as nurses for sick members of their own sex, basing his opinions upon extensive experience gained in military hospitals at home and abroad. Women had at various times been employed as nurses in military hospitals, but the practice had always died out. In the French army "manual attendance" by a woman upon a wounded soldier was distinctly prohibited. In the English army nurses have been employed for some

years, and in larger numbers since the Egyptian campaign, and there is an intention to extend the scheme in India. One of the difficulties in that country is that the nurses cannot long stand work in the enervating climate of the plains, and there is no place to send them to. Lady Roberts, the wife of the commander-in-chief, has consequently started a fund for erecting sanatoria in the hills for their use. On active service there are, of course, many other difficulties, but the chief seems to be the question of discipline; the experience when the system was first introduced into Netley was said to have been most unfortunate.

Several very interesting demonstrations were given to the Pathological Section of the British Medical Association at Dublin. Dr. Crookshank, who was recently Professor of Bacteriology at King's College, London, showed a large series of micro-organisms, and demonstrated, I believe, for the first time in this country, some of the peculiar bodies (plasmodium malaria and the semilunar bodies of Laveran) found in malarial blood, and recently so admirably described by Prof. Osler in an address before the Pathological Society of Philadelphia. Dr. Acland and Dr. Skerritt showed specimens of arterio-mycosis. Dr. Sims Woodhead, of Edinburgh, gave a most brilliant demonstration on lung diseases, using large stained sections in a lime-light lantern. Dr. Unna, of Hamburg, gave a demonstration in support of his views with regard to the micro-organisms of leprosy: he holds that the micro-organism is a streptococcothrix and not a bacillus; he believes that so-called bacillus is really a chain of cocci within a double sheath, and that when the bacilli were aggregated together the outer capsules fused together, and so gave rise to the appearance described as "leprosy cells including bacilli." The same physician gave an elaborate demonstration of his method of treating skin diseases with his gelatin-glycerin preparations, plaster-mulls, and salve-mulls. The neatness and cleanliness of these applications are very remarkable, and when we have grown familiar with the method of prescribing the applications they will come into general use.

Dr. T. H. Bickerton read an interesting statistical paper at the Dublin meeting of the British Medical Association on color-blindness with special reference to the examination of sailors belonging to the mercantile marine. He showed the practical importance of the subject to the travelling public, but it will probably be difficult to convince the ship-owners or the Board of Trade to take any further practical steps. Dr. Nettleship suggested that notes should be kept of every accident which could be traced to mistakes in the color of signals made by color-blind seamen and railway-men. This seems to be the most useful suggestion which has yet been made, and if every practitioner within whose knowledge such accidents occur would communicate the particulars to the medical press a mass of evidence might be accumulated which could be used with great effect in future stages of the controversy.

Two patients inoculated by M. Pasteur have recently died in the United Kingdom. The first death was that of a groom, Martin Cahill, aged 29, bitten on the wrist on June 14 by a dog which also bit Lieutenant W. Rushmarsh and two fox-hounds. These two dogs died of rabies. Cahill was admitted into St. George's Hospital, London, on August 11, and died of hydrophobia on August 14. The second death was that of Viscount Doneraile; he as well as his groom was bitten last January by a pet fox subsequently found to be rabid; both Lord Doneraile and his servant went to Paris and were treated at l'Institut Pasteur. Lord Doneraile was taken ill on August 22, and died on August 26; his physician, Dr. Hobart, of Cork, had no doubt that hydrophobia was the cause of death. The groom, who is a young man, remains in good health. The deceased was nearly seventy years of age.

The drought, which has hardly yet come to an end, has been the most severe experienced in these islands since meteorological observations have been accurately recorded. It began in the first week in June, and, though a good deal of rain has fallen since the middle of August, there is still great scarcity of water in many localities. In Manchester water is only supplied for a few hours daily; in Bradford the scarcity is still greater, and in a few country places there is still such an absolute drought that water is sent in milk-cans by rail.

A novel defence was made by some milk-dealers in Dublin charged with supplying the Guardians of the North Union with milk containing 24 to 30 per cent. of added water. It was contended by the contractors that the Guardians got what they contracted for. In the contract it was specified that the milk should have seven and a half degrees, and this, or even more, it yielded, the water notwithstanding. The magistrate refused to convict.

An extensive epidemic of scarlet fever of a mild type prevails at present in London. On August 25 there were seven hundred and forty-five cases of the disease in the hospital of the Metropolitan Asylum's Board. Though the cases are so numerous, the deaths last week were below the average.

DAWSON WILLIAMS.

THE general addresses before the International Medical Congress were valuable contributions to medical literature. Abstracts from them will be given in subsequent issues of this journal.

BALTIMORE.

THE American Dermatological Association held its eleventh annual meeting in this city during the last two days. The attendance of members, as well as the number of papers read, was a little below the average. The character of the work done does not compare very favorably with that done at previous meetings, although some of the papers possessed much merit from a clinical point of view. The discussions were carried on in a lifeless sort of way, and the proceedings as a whole lacked interest.

The social features of the meeting were in striking contrast with the scientific proceedings. The Association had never before met in the South, and the present opportunity was improved by two of the members resident in this city to give a decidedly festive character to the occasion. An elegant reception by Dr. Morison and an enjoyable fête at his country-house by Dr. Atkinson furnished distractions which may be, to some extent, accountable for the meagreness of the scientific results.

Among the guests of the Association was Dr. P. G. Unna, of Hamburg, editor of the *Monatshefte für Praktische Dermatologie*, and one of the most prominent of the younger German dermatologists. Dr. Unna is at present in this country for the purpose of attending the Ninth International Medical Congress, of which he is one of the Vice-Presidents. He entered freely into the discussions before the Association, and his terse, positive, and ready expressions of opinion, evidently based upon exact knowledge, compared very favorably with the hesitating and often vague enunciations of his American brethren. German dermatology has an excellent and well-qualified representative in Dr. Unna. In his informal remarks upon leprosy before the Association he showed profound pathological knowledge, as well as a wide command of therapeutic resources.

In electing Dr. I. E. Atkinson, of this city, as its President, the Association honored one of the original members, who is likewise one of the most modest, energetic, and capable dermatologists in the country. No member in the Association better deserved this recognition.

The "burker" Ross, who was condemned to be hung for murdering a poor white woman and selling her corpse to a medical college in this city, as previously mentioned in this correspondence, was temporarily reprieved last week, pending an investigation into his mental condition. Dr. John Morris, of the State Lunacy Commission, has interested himself in Ross's behalf, and is convinced, after investigation, that the condemned man is weak-minded and not mentally responsible for his actions. His representations induced the Governor to postpone the execution, which had been fixed for last Friday, until he could satisfy himself of the responsibility of the prisoner. He has finally concluded to let the law take its course, and to-day the death-warrant was read to Ross for the second time. If no further interposition of executive clemency occurs, Ross will suffer the death-penalty next Friday.

The Deans of the medical colleges are deeply immersed in correspondence, and I am informed that large classes are expected here during the coming session. G. H. R.

BALTIMORE, September 2, 1887.

PROCEEDINGS OF SOCIETIES.

THE ASSOCIATION OF AMERICAN PHYSICIANS.

(Continued from page 807.)

CLINICAL NOTES ON BERGEON'S METHOD OF TREATING PHTHISIS. BY DR. F. C. SHATTUCK, OF BOSTON.

THE amount of gas contained in the water recommended by Bergeon is only three cubic centimetres, an extremely small quantity. It seemed to him almost impossible that such a small quantity of sulphuretted hydrogen could have any appreciable effect. The solution which Dr. Bruen employed probably contained one hundred and fifty cubic centimetres of sulphuretted hydrogen. Bergeon attributes the good effects to the antiseptic influences of the gas on the suppurative processes. Dr. Trudeau has found that cultures of the bacteria of suppuration and of the bacillus tuberculosis are unaffected by being kept in an atmosphere of sulphurous acid gas. The speaker had treated only seven cases by this method. They were in an advanced stage of the disease. He had seen such improvement follow careful dietetic and hygienic management that he had not much confidence in the results claimed for special methods of treatment in these cases. Any new method of treatment will often have an apparently beneficial effect through its influence on the mind, even in those cases which are incurable. Six of the cases treated suffered with phthisis, and five were in an advanced stage of the disease. One was a case of chronic bronchitis with asthma and emphysema. Four of the patients suffered with more or less pronounced collapse from the use of the injections; nausea, vomiting, and diarrhœa occurred in several cases. In one case, although the patient was weak, no local or general ill effect was observed. In another case the treatment was continued four weeks with no ill effect. The only benefit obtained was a diminution of the expectoration. In the case of asthma and chronic bronchitis thirty-four enemata were given. The improvement was no more rapid than on a previous occasion, when the patient had been treated in the same general way with the

exception of the gas. He presented the following conclusions:

1. Toxic symptoms may follow the injection of sulphuretted hydrogen gas. These are nausea, vomiting, general depression, collapse, and perhaps headache.

2. Strong artificial solutions of sulphuretted hydrogen gas with carbonic acid gas are apt to cause abdominal discomfort. The risk of this is diminished by heating the solution of the former gas.

3. This is not by any means a specific. If useful at all, it is only as an auxiliary to the more usual methods of treatment.

4. The only benefit which we have seen that could be fairly attributed to the enemata was a diminution in the amount of the expectoration.

In conclusion, the author stated that the impression which he had formed was that the good results which had unquestionably followed this method of treatment were attributable in large part to the stimulation induced by the employment of a novel method of treatment which makes the patient feel that something is being done for him.

DISCUSSION.

Dr. William Pepper, of Philadelphia, said that he had, with the assistance of Dr. J. Crozier Griffith, employed this method in a certain number of cases. The injections were given to thirty-four cases, but in ten of them, either on account of the pain induced or for other reasons, the treatment was discontinued. In the remaining twenty-four cases the treatment was continued on an average twenty-five days. Other treatment was frequently combined with the use of the injections. A daily temperature-record was kept in sixteen cases. In four there was more or less reduction; in eleven there was no appreciable effect. In one the temperature increased, but this was probably a coincidence. In no case was the temperature brought from a febrile to a continuously normal condition. The fall was not more than is seen in similar cases under other methods of treatment.

In twenty cases in which the weight was recorded, there was in eight more or less gain. Eight pounds in thirty-seven days was the greatest gain. In six cases the weight remained stationary, and in six it was diminished.

The improvement in cough was not marked. The expectoration was somewhat diminished in four out of twenty-four cases. Search for the bacilli was made in thirty cases, and they were found in twenty-seven. In eleven cases the examination was repeated, and only in four was there any apparent decrease. Cases of night-sweats were not numerous. In one they were checked, and in seven improved. Physical examination showed no improvement in a single case. The enemata had a decided hypnotic influence in three cases. The only unpleasant symptom of any real moment was colic. This was complained of in eleven out of twenty-four cases. Three others suffered so much that the treatment could not be repeated. The colic was not often controlled by giving smaller quantities of the gas, nor did it seem to be influenced by the slowness of the injection. This method of treatment is seldom of real benefit, although it is occasionally of benefit by relieving certain symptoms.

Dr. H. C. Wood, of Philadelphia, after studying the cases treated by this method, had come to the conclusion that it was of a certain amount of benefit. The method of employing the gas presents many objections. The sulphuretted hydrogen should accomplish the same results when absorbed by the stomach as when taken up by the large intestine. He, therefore, had administered the sulphuretted hydrogen gas in carbonic acid water. He regarded this as a distinct addition to pulmonary therapeutics. It is not a new method. In connection with many of the sulphur-springs of Europe there are chambers fitted up where pulmonary catarrh can be treated by inhalation of the gas.

Dr. Beverly Robinson, of New York, had employed this method for the past two months, and his impression is that it is a valuable adjunct to our methods of treatment. The pain which is experienced in many cases may be due to the fact that there are ulcerations in the intestine. These may be present without the existence of diarrhœa. In a case now under treatment, in which tubercular deposits in the lungs are associated with ulceration of the larynx, he thought that this would be a good opportunity to observe the influence of the gas on the local condition. The man has received a daily injection for the past ten days. There has not been the slightest change in the appearance of the larynx.

Dr. George L. Peabody, of New York, said that his results had not been materially better than those of the gentlemen who had preceded him.

Dr. F. Forchheimer, of Cincinnati, had treated thirteen cases with this method. He performed the following experiment. Two or three patients were treated in the way recommended for some time. Then he had substituted for the sulphur solution plain water, and continued the injections for a time. He had also given the carbonic acid gas by injection, and, lastly, he had for two weeks treated these cases with simple injections of air, using the Bergeon apparatus. The patients in these experiments, of course, did not know that any change had been made in the gas employed. As far as he had been able to judge, the patients treated with air did about as well as those treated with sulphuretted hydrogen. It is clear that the introduction of air is not the cause of the pain in the Bergeon method.

Dr. James T. Whittaker, of Cincinnati, said that he had used the sulphuretted hydrogen gas both by injection and also by inhalation. The effects under both methods of administration seem to be the same. It mitigates the cough, relieves the fever, and lessens the night-sweats. It, however, is not a specific.

ATROPHY OF THE GASTRIC TUBULES—ITS RELATION TO PERNICIOUS ANÆMIA. BY DR. F. P. KINNICUTT, OF NEW YORK.

The author gave the histories of two cases in which the typical symptoms of pernicious anæmia were well marked. At the autopsy in each of these cases nothing special was found in any organ but the stomach. The inner surface of the organ was smooth. Microscopical examination was made of numerous sections removed from different parts of the stomach. Throughout a large extent no trace of gastric tubules was found. In some parts the more superficial portions of the tubules could be found, but the deeper portions could nowhere be made out. There was also seen a peculiar hyaline substance in the shape of tubes and of drops. Numerous irregular cells were seen near the surface of the mucosa. The author thought that in this lesion of the stomach was to be found the explanation of a certain number of cases of pernicious anæmia.

In the discussion of Dr. Kinnicutt's paper, Dr. Francis Delafield, of New York, and Dr. William Osler, of Philadelphia, agreed with the author that there is unquestionably a group of cases of pernicious anæmia in which there are serious lesions of the gastric mucous membrane, although these lesions are not always the same.

A THIRD CONTRIBUTION TO THE STUDY OF LOCALIZED CEREBRAL LESIONS. BY DR. E. C. SEGUIN, OF NEW YORK.

The case reported related to the location of the facial centre. The patient, a boy of 7 years, was first seen in January, 1885. He had been complaining of numbness in the right hand. The right leg and arm were slightly paretic. There was no headache and no aphasia. Shortly after this, clonic convulsive movements occurred in the right cheek, and both eyeballs were turned to the right. This lasted for over two hours. At times the speech was thick. There was no history of serious injury, and there was no evidence of pulmonary, renal, or arterial disease. There was no cranial tenderness on pressure. The tongue, when protruded, deviated to the right. The diagnosis was meningeal adhesion over the precentral region. Iodide of potassium was given in gradually-increasing doses until from sixty to seventy-five grains were taken. Early in April of the following year symptoms of tubercular meningitis developed, and the child died after an illness of three weeks. At the autopsy, the ordinary lesions of tubercular meningitis were found. In addition there was a patch of adhesion situated over the left precentral gyrus and the caudal part of the second frontal gyrus. This was one inch in diameter. This would indicate that in the human brain the facial centre is in the caudal end of the second frontal convolution.

The second case related to the situation of the leg-centre. A patient, aged 49 years, suffered with paresis of the right leg and clonic spasm of the right abdominal muscles. There were right hemi-epileptic attacks, the spasm beginning in the abdominal muscles and extending to the arm and leg. These attacks were repeated without loss of consciousness. Paralysis of the right leg and paresis of the right arm developed. There was no aphasia and no choked disk. Attacks of a syncopal character occurred, in one of which the patient died. At the autopsy a large sarcomatous tumor was found, involving the cortex of the paracentral region gyrus. Two small nodules were found in the white substance below the principal tumor. This would indicate that the nerve-centre for the leg was in the paracentral lobule.

DISCUSSION.

Dr. James J. Putnam, of Boston, with reference to the leg-centre, reported a case recently under his care. A man of forty-five, suffering with locomotor ataxia, probably of syphilitic origin, suddenly developed convulsions of the right arm and leg without loss of consciousness, and without change in the voice. The symptoms relating to the arm entirely passed away, but the leg never recovered its normal condition. The patient died some time later, and at the autopsy a small hemorrhage was found at the lower edge of the paracentral lobule.

Dr. F. T. Miles, of Baltimore, also reported a case suffering with Bright's disease, which suddenly became hemiplegic without the voice being affected. The arm and leg were affected. He rapidly improved, but the leg remained weak. He complained a great deal of a dragging in the shoulder. At the autopsy the only lesion that could be found was a hemorrhage of the size of a bean in the paracentral lobule.

Dr. H. M. Lyman, of Chicago, said that some months ago he had seen a case in which there was a sudden convulsion without loss of consciousness, the left arm being principally affected. These convulsions were repeated. There was a paretic condition of the left arm which, in a few days, extended so as to involve the corresponding leg. The convulsive movements of the upper extremity continued to recur. They did not involve the face. The patient died, and a sarcoma was found on the right side, occupying the position of the centres for the arm and leg.

ON THE FREQUENCY WITH WHICH LEAD IS FOUND IN THE URINE—AND ON THE SYMPTOMATOLOGY OF CHRONIC LEAD-POISONING. BY JAMES J. PUTNAM, M.D.

This paper consists of an analysis of eighty-six cases in which the urine had been examined for lead. The analyses were made by Professor E. S. Wood and Dr. A. M. Conny, of Harvard University, although no unequivocal signs of lead-poisoning were present. The cases were divided into the following groups:

	No. of Cases.	Lead Present.	Lead Absent.
1. No symptoms not attributable to other causes	11	2	9
2. Neurasthenia and simple mental depression	9	5	4
3. Fine muscular tremor; nervous debility	9	9	0
4. Multiple neuritis; neuritis with chronic myelitis; spastic paraplegia; multiple sclerosis	19	15	4
5. Locomotor ataxia	3	0	3
6. Progressive muscular atrophy	4	0	4
7. Acute poliomyelitis of the adult	1	0	1
8. Cerebral and cerebro-spinal cases	7	6	1
9. Epilepsy	8	3	5
10. Sciatica	2	0	2
11. Vague neuralgias of long stand'g	4	4	0
12. Profound anæmia	3	1	2
13. Unclassified	6	3	3

The number of cases in these groups is too small to be of statistical value, but may help in the further analysis of the cases, and as a basis for further research. Of the eighty-six cases of which the urine was examined, lead was found in forty-eight and was absent in thirty-eight, and there is good reason for believing that the number of cases in which it was found in the urine does not fully represent the whole number in which it was present in the body.

If from the forty-eight cases in which lead was found we subtract those where the patients were known to have been strongly exposed by their occupation or otherwise, we have left thirty-two, to be contrasted with thirty-eight, as approximately representing the ordinary exposure of the community.

It is to be remembered, however, that the patients were drawn mainly from the poorer classes of the community, and that some of them came from country towns or villages where the practice of pumping drinking-water through lead pipes from a distant well—the end of the pipe resting in the well—is still very common. All such cases that were known were, however, excluded. Taking the evidence furnished by the cases themselves, and seeking to endorse it by testimony drawn from the literature of the subject, by the effects of treatment, we arrive at the following conclusions, which are, of course, only to be regarded as provisional:

1. It is probable that lead may cause neurasthenic symptoms which may exist for a long time without other signs of poisoning.

2. The same is true of fine muscular tremor, especially if associated with debility.

3. The most important conclusion is: lead seems to cause occasionally a greater or less degree of the symptoms classed as spastic paraplegia, instead of the usual type of paralysis with atrophy and loss of the deep reflexes.

4. Additional evidence is furnished of the importance of suspecting lead as a cause of vague cerebral symptoms, such as are often due to syphilis.

5. In one case of epilepsy in a person not predisposed, and where the probable first attack occurred at the age of twenty-five, besides the discovery of lead in the urine there was a slight weakness and impairment of electrical reaction of the long extensors of the fingers.

Two cases of ataxia with extensive muscular atrophy and other signs of peripheral neuritis were reported, probably due to lead.

The next paper read was by I. E. Atkinson, M.D., of Baltimore, entitled

FORMS OF TYPHOID FEVER SIMULATING REMITTENT MALARIAL FEVER.

Continued fever simulating remittent fever is often observed, in malarial localities especially, and is often regarded as such or as typho-malarial fever. While it is now generally recognized that the latter title does not designate a specific integral disease, every one admits the frequent concurrence of the two principles. The term is unfortunate as misleading and encouraging lax habits of observation and treatment. The tendency to attribute the later evolution of frank typhoid symptoms from what at first appeared to be a malarial fever to a transmutation of the latter disease to the former, is of course unjustifiable. The theory that typho-malarial fever or continued malarial fever is a combination of a septic and malarial poison, as defended by Loomis and others, is rejected for the reason that the term "sepsis" is used too indefinitely, and cannot explain facts in the course, history, and pathology of the affection, which, however, may be perfectly reconciled with a typhoid origin. It is apparent that the term "typho-malarial" is made to include many groups of atypical cases.

The object of the present paper is to describe forms of typhoid fever in which all the usually characteristic symptoms are absent except mild fever. These cases commonly occur during the late summer and early autumn. They begin with a chill or insidiously, and assume a course of mild remittent type, never passing into a typhoid condition, never developing the characteristic symptoms of typhoid, yet absolutely uninfluenced by antiperiodic treatment. They last three, four, or even five weeks, and almost always end in slow lysis and recovery. They resemble malarial conditions except in the persistence of the fever under strongly anti-malarial treatment, and in the occasional concurrence of

circumstances pointing to a typhoid origin. There is no hebetude, the patient sleeps well, the tongue is slightly coated, there is almost never epistaxis, constipation is commonly observed, there are no bloody stools, no tympanites, no iliac tenderness or gurgling, and rose spots are usually absent. The patient is bright and cheerful. The more severe cases, after beginning as remittents, may gradually evolve typhoid symptoms. Three cases were reported, showing the type of fever described occurring under conditions indicating their typhoid origin. While typhoid fever is one of the most characteristic of diseases, its special symptoms are very inconstant. There is not a sufficient realization of the mildness with which it often runs its course. Walking typhoid, although usually considered rare, is in reality frequent. Cases in which sudden accidents reveal their true nature are probably but a small portion of the whole number. Our views of typhoid fever have been largely modified. Low ranges of temperature are now often encountered. Straube and Fraentzel and others have reported severe forms of the disease with high mortality, although the temperature did not attain 102.2°. Normal, and even subnormal, temperatures are sometimes maintained throughout the attack. In mild cases a slight degree of fever-heat is not at all uncommon. Liebermeister and others report such cases. Loomis treats "mild typhoid" with walking cases, and states that the eruption appears early and is scanty and brief, and that diarrhœa is present in most cases. This is true of many cases; but there is a large class in which constipation is the rule and rose spots the exception, much larger than is generally admitted. Liebermeister and others describe interesting examples. Dr. W. W. Johnston has most accurately described similar cases occurring in Washington. Malaria often complicates typhoid fever, but it oftener happens that its presence is assumed unjustifiably. A mental bias in favor of malaria is often strongly pronounced in the face of the strongest contrary evidence. The diagnosis of these cases from remittent malarial fever often rests upon the crucial test of treatment. It is admitted that occasionally antiperiodic remedies fail to control the malarial paroxysm, especially in pernicious and adynamic forms. In milder forms the behavior under quinine practically solves the difficulty. Where the full administration of the antiperiodic remedy for a number of days fails to terminate the attack, the diagnosis of typhoid fever becomes justifiable, and the prognosis can be made with a high degree of confidence. Not often earlier than the second or later than the fourth week the fever will terminate, almost constantly by lysis, rarely by crisis. There are, however, exceptions, as shown by the occasional occurrence of death in walking typhoid and in other milder cases. Unquestionably, however, many cases of walking typhoid are never detected. They may often, if examined, exhibit characteristic symptoms, diarrhœa, rose spots, splenic enlargement, etc.; but in not a small number these signs are not discovered. The true nature of many of these milder cases is never recognized, and the pathological responsibility is thrown upon febricula, simple continued fever, gastric fever, bilious remittent fever, remittent malarial fever, etc. In the future a solution of the difficulty will be obtained through the knowledge derived from bacteriological research and culture-observations.

DISCUSSION.

Dr. William H. Draper, of New York, said that many cases in New York which have been diagnosticated as typho-malarial fever he considered to be cases of typhoid fever. The diagnosis of typhoid fever can be usually made in the course of the first week of the disease by attention to the characteristic course of the fever. The nervous symptoms of typhoid fever are also of great importance in the diagnosis. In considering a disease like this, it should be studied in its totality. His own experience confirmed that of others with reference to the use of quinine as an antipyretic in typhoid fever: that unless it is given in such doses as to produce a certain degree of collapse it is useless. He believed that it only increases the discomfort of the patient. If in five or six days the use of quinine does not succeed in checking the fever, we may conclude that we are dealing with a continued fever of the nature of typhoid.

Dr. John Guitéras, from an extended opportunity of studying these cases, both in the North and in the South, had come to a conclusion different from that expressed by the author. These cases present no symptom of typhoid fever with the exception of the continued fever, and this is a strong argument against their being typhoid. These cases are so numerous as we go farther South that he would class them as a separate disease. After examining post-mortem cases of prolonged continued fever, he had failed to find the lesions of typhoid fever. In the South we have, of these three diseases, malarial remittent fever at one end, typhoid fever at the other; and between these we have cases of the kind described by Dr. Atkinson. His view of this fever is that it belongs to the class of functional fevers. A simple continued fever may be set up by an excessive demand made upon any of the important functions of the body. He had thought that in warm climates, where constant exertion was required on the part of the heat-centres to keep within limits the production of heat, a paralytic condition of these centres might be induced, especially towards the close of a long and hot summer. This fever presents none of the symptoms of a

malarial affection, and is quite common in sections where malaria is unknown.

Dr. A. Jacobi, of New York, thought it a mistake to say that those cases in which the fever cannot be broken in five or six days by quinine are not malarial. There are cases of remittent fever that will not be broken by quinine. There is one assistance in diagnosis which he had not heard alluded to, and that is the urine-test. This has frequently been of much service to him. It is prepared as follows:

Solution No. 1: sodium nitrite, one part; water, two hundred parts.

Solution No. 2: solfanilin acid, five parts; concentrated muriatic acid, five parts; water, one hundred parts.

Add one and one-fifth parts of the first solution to fifty parts of the second.

Equal parts of this mixture and the urine are to be mixed. Then add about sixty or seventy per cent. of aqua ammoniæ. In normal urine there will be only a slight discoloration, while in urine from typhoid fever there will be a deep purple discoloration. This test is rarely applicable during the first two or three days. It generally can be applied up to the fifteenth or eighteenth day. It should also be stated that in cases of acute miliary tuberculosis the same reaction is obtained.

Dr. W. W. Johnston, of Washington: It is well known that in places where malaria has largely prevailed, as cities have grown and drainage improved malarial affections have diminished and typhoid fever has increased. This has been the case in Washington. It has also been observed in London. The cases of typhoid fever which he had observed may be arranged into three groups: those in which all the symptoms have been present, those in which only one has been present, and those in which all the symptoms with the exception of the fever have been absent. He could see no reason clinically for saying that these cases which do not present the typical temperature of typhoid fever are not cases of this disease. It is not necessary that the temperature should reach any special degree. Any temperature, provided it presents the typical curve, may be characteristic of typhoid fever.

Dr. R. H. Fitz, of Boston: An epidemic of an anomalous form of fever recently occurred in Boston among a number of emigrants. The diagnosis lay between typhoid and typhus fever. It was concluded that they were cases of typhoid fever. One case ended fatally. The intestinal lesions were of the most trivial character. The enlargement of Peyer's patches was no greater than is seen in many cases of enteritis. The lesions were so superficial that it seemed quite probable that they would have disappeared if the case had lived a few days longer.

Dr. Israel T. Dana, of Portland: Some of the cases to which Dr. Fitz has referred found their way to Portland, and one of them died there. The autopsy in this case showed well-defined but not complete lesions of typhoid fever.

Dr. W. J. Councilman, of Baltimore, said that he had expected to hear some allusion made to the examination of the blood as a means of diagnosis. A simple examination of the blood will enable us to differentiate between the continued malarial fevers and typhoid fever. The organisms found in these cases of continued malarial fevers are very easy to recognize. They are large crescentic forms, free in the blood and not contained in the corpuscles. They do not require a high power for their detection.

Dr. William Osler, of Philadelphia, agreed with the last speaker that we have in the microscopical examination of the blood a positive means of diagnosis. In doubtful cases, a careful examination of the blood will determine whether they are malarial or not; while a careful examination by culture-methods will determine whether or not it is a case of typhoid fever.

He mentioned three instances in which the examination of the blood aided in the diagnosis. One was a case of continued malarial fever thought to be typhoid; another was a case of remittent fever supposed to be typhoid. In both these instances examination of the blood showed the case to be malarial. In the third instance the patient had a chill, which was repeated. It was supposed to be a case of remittent fever, but the malarial organisms were not found. The case pursued an atypical course, and when two weeks advanced in convalescence had a well-marked relapse of typhoid fever.

Dr. I. E. Atkinson, of Baltimore, in concluding the discussion, said that he had been much interested in the remarks made by Dr. Guitéras. The cases reported were, he thought, cases of typhoid fever. He had never seen death in these atypical cases. That the cases of fever which occur in this locality, and which present the characters described, are really cases of typhoid fever, and not of malarial fever, was what he claimed in his paper.

At the final executive session, the report of the Committee on the Congress of American Physicians and Surgeons was received and adopted, and Dr. Wiliam Pepper, of Philadelphia (with Dr. Reginald H. Fitz, of Boston, as alternate), was appointed to represent this Association.

OFFICERS FOR THE ENSUING YEAR.

President.—Dr. William H. Draper, of New York.

Vice-Presidents. — Dr. Francis Minot, of Boston, and Dr. J. Palmer Howard, of Montreal.

Recorder.—Dr. William Osler, of Philadelphia.

Secretary.—Dr. Henry Hun, of Albany.

Treasurer.—Dr. W. W. Johnston, of Washington.

The following were elected to active membership: Drs. A. V. Meigs, Louis Starr, and J. H. Musser, Philadelphia; Dr. James E. Reeves, Wheeling, West Virginia; Dr. William H. Whitney, Boston; Dr. James Stewart, Montreal; and Dr. M. Allen Starr, New York.

Dr. John S. Billings, of Washington, was elected to honorary membership.

Adjourned.

BRITISH MEDICAL ASSOCIATION.

Fifty-Fifth Annual Meeting, at Dublin, August 2–5, 1887.

(Continued from page 810.)

DR. W. S. PLAYFAIR, F.R.C.P., LL.D., Professor of Obstetric Medicine at King's College Hospital, presented a paper on

The Prevention of Puerperal Fever.

"The subject which I have the honor to introduce to you for discussion cannot fail, I think," said the Professor, "to interest those upon whom the responsibility rests of attending women in labor. The prevention of the scourge of midwifery practice, septicæmia, is one of the most important duties. In the short space of a quarter of an hour allotted me it will be impossible to do more than lay down a few general rules which should guide us. In lying-in hospitals, since the revolution of antiseptics, marvellous change has been effected. I am more particular to-day to insist on the prevention of puerperal disease in private and domiciliary practice. In the well-conducted lying-in hospital of to-day a woman is actually as safe, if not safer, than if confined at home in a large house and surrounded by all the comforts money can procure. The great Rotunda Hospital of this city, and the lying-in institutions of London, Paris, and St. Petersburg, as well as of other Continental cities, prove what I have said. There is nothing in the history of medicine more remarkable than the change in these institutions since the adoption of the life-saving principles of Lister. I doubt if such a thing can be found now as a hospital for lying-in in which antiseptic rules have not been adopted, and in which similar good results have not followed it. Though recognized and practised in public practice, I doubt if even yet antiseptic midwifery is at all general in private practice. Called to see septic cases as a consultant, I very seldom find that the practitioner in attendance has followed out the rules in such general use in lying-in hospitals. Perhaps when the younger class of practitioners get more into the work it will be different; but with the bulk of men now in practice no special care is taken. In civil practice similar care and precautions to those practised in institutions—a matter of no real difficulty to practise—should almost wipe this scourge out of existence. Pritsch daily dressed a putrid wound in the person of his brother for a whole year, and at the same time daily performed two or three obstetric operations, and by a vigorous antisepsis has not had a single case of septicæmia during the whole time.

"To show how simply this may be done and to elicit your views on this subject is my object to-day. I have no time for argument, and must perforce be brief and content myself with dogmatic statements. To prevent puerperal fever we must have an intelligent idea of what it is, how it originates, and how it may be conveyed to the patient. Unless we are agreed on these points, we are not likely to come to any conclusion of value. I take it to be now almost universally admitted that puerperal septicæmia is practically the same thing as surgical septicæmia,—a disease caused by poison absorbed through the genital tract into the system, which poison may either originate *de novo* or be conveyed to the patient from without by septic matter being brought in contact with her. We should manage her so as to reduce the chance of absorption to a minimum, closing as much as possible the channels through which septic matter is to be absorbed, by thorough and permanent contraction of the uterus, and by lessening absorptive surfaces offered by perineal lacerations and the like. How customary it is to find the binder hurriedly applied, with the uterus imperfectly contracted, remaining large and flabby underneath it, distended with clots, which frequently breed mischief! I practise and teach never to remove the hand from the uterus for at least twenty minutes after the removal of the placenta, keeping up a continuous though not rough rubbing or kneading. I believe it also good practice at this time to administer a large dose of ergot, and, if contractions do not set in, to make a hypodermic injection of ergotin or ergotinin. Personally I have never seen any harm result from the routine administration of ergot.

"As to perineal lacerations, I think the rule should be absolute that the perineum should be inspected after labor, and that every tear more than a slight laceration of the fourchette should be closed with catgut or wire sutures, first cleansing thoroughly with the bichloride of mercury solution, and subsequently dusting with iodoform night and morning. Thus any chance of absorption through the bared perineal surface is avoided, and complete healing is insured.

"Most important, however, are the antiseptic precautions by which we are to prevent the poison being introduced from without. This, indeed, is the essence of the whole matter. The vast majority of cases of puerperal septicæmia, to my mind, arise directly from poison carried to the patient by some prevent-

able accident. This is an unpleasant fact; but we must look unpleasant facts in the face. The nature of the medical man's work brings him constantly into contact with septic matter. There is no avoiding this. What we have to do is to take the precautions happily at our disposal to avoid the risk or reduce it to a minimum. The obstetrician, if he has much gynæcological practice, is especially in danger of infecting his patient. He has, in constant vaginal examinations, to imbue his fingers with vaginal discharges which may be of the utmost possible virulence, such as of uterine carcinoma. Many have infected themselves in this way through punctured wounds of the finger, and why not infect others?

"If I dwell on unpleasant topics such as these, my only object is to secure a thorough appreciation of their danger and its avoidance. The nurse has often, and justly, too, the blame to bear. She is constantly handling the genital organs at all hours for many days. Many of the older class of nurses persistently set themselves against the antiseptic precautions, 'new-fangled fads which they don't hold with.' If they are positively ordered to carry them out, they are apt to do so in the most perfunctory way. The tips of the fingers are just dipped into the antiseptic lotion. A sponge is used to wipe the genitals, and is put away unwashed or most imperfectly washed on a hot summer day. Quite recently I had occasion to use a catheter, and the nurse produced one belonging to her. I fished out of the eye a decomposing blood-clot, which had been lying there for days or weeks. Again, not long since I saw a most intense case of septicæmia; the nurse assured me that she had been most careful, and yet I found an under-sheet unchanged for four days, saturated with lochia, on which the patient was lying. In a hundred unsuspected ways such as these death may be conveyed to the patient. If, however, efficient antisepsis is to be carried out, the rules must be such as the nurse can understand, and not too complicated and troublesome to put into execution."

This is a copy of the card he gives to every nurse in attendance on cases under his charge.

"*Antiseptic Rules for Monthly Nurses.*

"1. Two bottles are supplied to each patient. One contains a solution of perchloride of mercury, of the strength of one part to one thousand of water, tinted with litmus (called the one to one-thousand solution); the other carbolized oil (one to eight).

"2. A small basin containing the one to one-thousand solution must always stand by the bedside of the patient, and the nurse must thoroughly rinse her hands in it every time she touches the patient in the neighborhood of the genital organs for washing or any other purpose, before or during labor, or for a week after delivery.

"3. All sponges, vaginal and rectal pipes, catheters, etc., must be dipped in the one-to one-thousand solution before being used. The surface of slippers, bed-pans, etc., should also be sponged with it.

"4. Vaginal pipes, enema tubes, catheters, etc., should be smeared with the carbolized oil before use.

"Unless express directions are given to the contrary, the vagina should be sponged twice daily after delivery with warm water, with a sufficient quantity of Condy's fluid dropped into it to give a pale pink color.

"All soiled linen, diapers, etc., should be immediately removed from the bedroom.

"N.B. These rules are for the protection of the patient from the risk arising from accidental contamination of the hands, or by sponges. It is therefore hoped they will be faithfully and minutely adhered to."

There is nothing complex in these rules. The details may be varied considerably as to the form of antiseptic employed, etc. It is the principle of antiseptics more than the details which is important. He prefers the perchloride of mercury to any other antiseptic, not only because of its acknowledged potency, but because it is bland and unirritating to the skin, and capable of being carried in a concentrated form and the solution made at a moment's notice. Nurses will not use a carbolic lotion, or use it inefficiently, because of its tendency to injure the hands, while he had never known one to object to the mercurial solution. He does not recommend it for vaginal injections after labor, because of a few cases of mercurial poisoning that have been reported to follow its use in this way.

There are a few precautions to be used during the labor for the physician himself.

1. Before making any examination or using the antiseptic lotion, he should thoroughly cleanse his hands with soap and water, being specially careful about his nails, under which septic matter may easily lurk.

2. At an early stage of the labor the vagina should once be thoroughly syringed with antiseptic lotion, and the vulva sponged with it.

3. When the head is distending the perineum, the external genitals should again be sponged with the solution.

4. Cold cream, lard, etc., should not be used for lubricating the fingers, but carbolized oil or vaseline employed instead.

5. When possible, sanitary towels should be used to receive the lochial discharges in preference to diapers, as they may be burned when soiled. All risk from imperfectly-cleansed diapers is thus avoided.

In conclusion he said, "I do not think these suggestions impose a grievous burden upon the practitioner who has the welfare of his patient at heart. There are many other points on which I might dwell if time allowed. One which seems particularly important is the duty of satisfying our-

selves of the sanitary condition of the house in which our patient is to be. It is but seldom, however, our opinion is asked on this point. Unfortunately, the public believes it is the duty of the physician to cure disease when it arises, not to prevent it. Meddling with such matters beforehand would be too often considered an unjustifiable interference. I am fully convinced that if a careful sanitary inspection were instituted before parturition, a great step would be taken towards attaining the object of this paper,—'the prevention of puerperal fever.'"

DISCUSSION.

Dr. Lombe Atthill, of Dublin, said he was a firm believer in septicæmia. The term puerperal fever he abhorred. It is caused by septicæmia. He was the first master in the Rotunda Hospital to require antiseptic precautions, which were then very imperfect. He had to undergo great opposition. Especially was this so with the nurses. It was indeed an effort to get them to part with their old, black, dirty dresses, and put on the uniform. They thought that to be compelled to wear such dresses as these in winter was nonsense. A relaxed condition of the uterus is a common cause of septicæmia. He remembered one patient who came into the Rotunda in labor. No physician was present at the time; but the nurse saw there was something the matter with her, and put her in a private ward, separate from the other patients. He was soon called, and found the patient to be suffering with erysipelas. She could not be put out of the house in labor, but after delivery she was sent to another place, only remaining in the hospital fifteen hours. There had been no case of puerperal fever for months before, yet there was one before twenty-four hours, and this was followed by several others, then they gradually disappeared. He thought, however, these were due to atmospheric conditions, and not to the presence of the woman in the hospital. Contamination in that case was hardly possible under the conditions. He believed that the preliminary treatment of puerperal fever will prevent puerperal fever in many cases. He did not believe that ergot given in a single dose will produce any effect. It should be given frequently.

Dr. M. T. Molony, Arklow, Ireland, said that in his city of six thousand inhabitants there had been an epidemic of scarlet fever for months. During this time there was no case of puerperal fever, and no approach to one. The scarlet fever was of a mild type, yet some cases were quite malignant. They had many cases of sore throat, some of them malignant, and some tonsillitis, etc. The town is the most unsanitary place on earth. As medical officer he attended most of the cases of labor, but used no antiseptics except on his forceps.

Dr. C. H. P. Routh, of London, thought that women in an unhappy state of mind (as those who had been seduced), as has been shown by Dr. Barnes, are much more likely to suffer with puerperal fever.

Dr. John M. Byers, of Belfast, was a thorough believer in the septicæmic view of puerperal fever. He asked, How can gentlemen maintaining views of other causes of puerperal fever explain the results of antisepsis in hospitals? Our nurses should be firm believers in antisepsis. Opinion is now going in the direction that the number of cases which are autogenetic is diminishing. The doctor then quoted from a paper by Dr. E. C. Linke, of Cincinnati, read before the American Medical Association in 1887, and published in the *New York Medical Record*, where the question of "How soon after exposure to infection can you attend a woman in labor?" was discussed and the opinions of prominent authorities were quoted. These opinions were at variance. It was a question he would wish answered.

Dr. Samuel Sloane, of Glasgow, said that antiseptics in the hospital in Glasgow have reduced the mortality very much. We cannot do without antiseptics. We should look more to antiseptic measures than we do. Close rooms in winter are more productive of puerperal fever than chills.

Dr. Moorman, of Edinburgh, thought the plan to stamp out puerperal septicæmia was a Utopian idea. How can we stamp out atmospheric conditions, lochial discharges, etc.? The patient should be prepared beforehand. She should be given the chloride of iron, quinine, potash, etc.; also ergot in small doses before labor is innocuous and acts beneficially. Is the prevention of puerperal septicæmia the function of the nurse more than of the doctor? It is not at all above the dignity of the obstetrician to look after the nurse. He closed by recommending uterine injections.

Mr. Lawson Tait said that, with Lombe Atthill, he abhorred the name of puerperal fever. The practitioners in his neighborhood had been giving him the opportunity to open the abdomen in cases of puerperal septicæmia, which operation was followed by good results. There are two kinds: one is systemic, and medicine and surgery are powerless; the other is local, and the patient can be saved. He had recently been called into the coroner's court to testify in a case where sixteen cases of puerperal fever had occurred in the practice of one man, all of which died. He inquired, and found that the most elaborate antiseptic precautions had been made and carried out. He did not inquire too closely, fearing to find out too much, but, after the trial, remembering that all the cases of puerperal septicæmia had been forceps cases, he asked him what precautions he had taken with his forceps. He replied, None. There was the whole secret.

Dr. H. Cameron, of Glasgow, had seen five

cases of puerperal septicæmia in one man's practice. He found that he had not been in the habit of disinfecting his forceps. He advised him to disinfect his forceps and burn his leather bag.

Dr. W. H. Humiston, of Cleveland, Ohio, said, If, as one gentleman has stated, puerperal fever is an epidemic disease, and occurs in waves without any assignable cause, why does it not now occur in the lying-in hospitals at Dresden, Prague, and Vienna? In these very same institutions, prior to the adoption of strictly antiseptic precautions, the mortality from puerperal septicæmia was appalling, ranging from ten to eighteen per hundred.

It had been his privilege to visit those institutions and observe their methods of conducting their obstetrical cases. They are most careful, and insist on the highest degree of cleanliness obtainable by frequent washing of hands and instruments with soap and water and antiseptic solutions. When Professor Leopold took charge of the Dresden Lying-In Hospital the mortality was thirteen per cent.; by strict antiseptic precautions it was brought down to *nil*, and has so remained for several years, not a case occurring within its walls.

One gentleman has asked how soon after having come in contact with septic material is a physician justified in attending a case of obstetrics. The reply was, at once, allowing time for change of clothes and thorough washing with reliable antiseptic solutions.

In Carl Braun's wards in the lying-in department of the general hospital at Vienna the assistant has charge of the wards, and takes personal charge of all complicated cases. At the same time he is daily giving operative courses upon the cadaver to students and practitioners, and the speaker had seen him summoned from the operative table in the pathological building to make a forceps-delivery. He would remove his overcoat and proceed to most careful washing of the arms and hands. The speaker never saw septic trouble arise in cases so managed.

One important point, which is original, and it is hoped will be found reliable in practice, is the indication that the specific gravity of the urine gives in foreshadowing coming disorder. If before and soon after delivery the specific gravity of the urine is markedly below 1020, look out for breakers ahead, for with the great amount of effete matter to be carried out of the system, if the elimination be sufficient the urine should be of high specific gravity.

Dr. A. V. Macan, of Dublin, said, We are all agreed that sepsis is a great danger after delivery. What is the relative danger of sepsis and other causes? If antisepsis reduce the cases so enormously, the great majority must be caused by sepsis. The remainder we will present to those who think there are other causes. It is a small present. Even in the heterogenic, sepsis must be introduced. He declared that allowing a nurse to go out to follow the calling after a three weeks' training, as is the case in London, is a disgrace to civilization. Here in the Rotunda we think six months little enough.

Dr. Playfair, in closing the discussion, said, Puerperal fever was not used in the paper, yet that term was heard again and again in the discussion. Cold and chill may produce a puerperal disease, but not puerperal septicæmia. No one is more fully possessed than himself with the idea of preparing a patient against puerperal septicæmia. The allotted time was far too brief to allow him to go over the whole ground. He did not believe that there ever was an epidemic of puerperal septicæmia. It does not come in this way. It is totally different from cholera and that class of diseases. This is a most dangerous theory. Puerperal septicæmia may be introduced through the atmosphere.

Dr. Arthur V. Macan, of Dublin, Master of the Rotunda Hospital, and President of the Section, made

THE ADDRESS IN OBSTETRICS.

After thanking the Section for the honor done him by electing him President, and welcoming the members to Dublin, and inviting them to make themselves at home at the Rotunda Hospital, the President proceeded to tell in what ways the practice of the Rotunda Hospital differed from similar institutions elsewhere. It was, first, the use of abdominal palpation in every case of labor, together with the practice of external version whenever necessary. Second, our time-honored and now almost universally adopted method of conducting the third stage of labor. Third, the application of antiseptics to midwifery. This he knew has been done with success in several other places, and, as it will be embraced by one of the subjects fixed for discussion, he need not here mention it. In regard to gynæcology, our practice differs from that of most of the teaching-centres in this kingdom in the systematic employment of bimanual examination, the patient lying on her back instead of on her side, the washing out and curetting of the uterus without previous dilatation of the cervix, and, lastly, the theories held as to the normal position of the uterus and the treatment of displacements of that organ which follow.

To begin, then, with the systematic lateral palpation of the abdomen in every case of labor. There are probably few in this company who have not experienced a feeling akin to despair at the difficulties to be overcome before the child's position, even in the least complicated cases, could be determined by vaginal examination. If the labor be protracted, and a caput succedaneum has formed, the diagnosis becomes almost impossible. He believed that a large number even of experienced practitioners used to content themselves

with diagnosticating whether the head presented or not, and never troubling themselves further. The position was too often that the woman was lying on her left side, the practitioner standing behind her, and the child placed upside down in the woman's abdomen. This made the mental process very complicated, so much so that the students were recommended by some text-books to cut the figure of an imaginary pelvis out of paper to assist them. All that is now changed, and any person with ordinary abilities can learn to make out the child's position after a very short apprenticeship. If then they are called on to deliver artificially they can do so intelligently. We can not only make out the position of the child, but we can also generally determine whether the child be large or small, what the quantity of liquor amnii is, and whether the birth be plural or single, and, probably the most important of all, we can determine whether the head be proportionate to the pelvis or not, by the projection of the head over the pubes and the extent to which it can be made to enter the front of the pelvis by firm pressure applied externally. Finally, there is no such school for learning the palpation of abdominal or other tumors as the palpation of the pregnant uterus.

He mentioned that we can often feel the arm of the child going out from the shoulder, while occasionally the elbow may be made out. In one case a hydrocephalic head was readily distinguished, in another the probability of the fœtus being anencephalic was foretold, while in one case the cord has been felt crossing the child's back, and quite recently we have thought that we have made out the placentic *situ* by the fingers being lifted off the child and the outlines being undeveloped.

To resume briefly, the points that can best be determined by the lateral examination are: 1st, the fact of pregnancy; 2d, the period of pregnancy; 3d, size of the child; 4th, condition of the bladder; 5th, axis of the uterus; 6th, condition of the abdominal wall; 7th, abnormal condition of the ovum, such as twins, hydrocephalus, anencephalus, hydatid mole, and frequently the life or death of the fœtus. Further, it directly leads to the practice of external turning, renders the finding of the fœtal heart simple, and generally enables us to estimate whether the pelvis be contracted or not. In these latter cases we also made out a low continuous murmur, like the uterine souffle, over the supposed placental *situ*. Of course, cases in which the placenta can be palpated will always be rare. To make them possible the placenta must be planted on the anterior abdominal walls, and the condition of the wall of the uterus, etc., must be favorable to palpation.

The step from the accurate diagnosis of the position and posture of the child to external turning is an almost imperceptible one. We can sometimes turn the child by the pressure of a couple of the fingers of one hand on the head. Such cases are exceptional, however, and the difficulty gradually increases with the tension and thickness of the abdominal walls, the fixation of the presenting part in the pelvis, and the passiveness of the patient, until we come to cases when we must first mobilize the presenting part by drawing it out of the pelvis from the abdomen or pushing it upward by the finger in the vagina, and, finally, to such cases where external turning even under chloroform is impossible. The cases in which we have found external turning of most importance, besides the mere rectification of a breech- or transverse-presentation, are cases of funis-presentation, whereby turning the funis may be carried on with the part presenting; also in cases of head-presentation with antero-posterior contraction of the pelvis when we wish to extract by the foot. With the head on the perineum and delayed labor, we can use a very great amount of force by pressure on the abdomen; in fact, we can get the whole weight of the body, almost, to bear on it. Suppose that much of this weight is lost by maldirection, we still have enough to very materially aid the progress of the case and lessen the number of forceps-cases. Schroeder has shown that it is want of power in the abdominal walls that delays the expulsion of the child. If the expelling force is a little less than the combined resistance, the child must, so to speak, remain forever in the same position. In such a case the addition of a single pound may be sufficient to expel the child. Further, the experience learned by palpation is a great help in the conduct of the third stage of labor, as it is much easier to rectify malposition before the strong uterine pains have set in. It is advisable for the woman to be examined some time, say a fortnight, before the estimated time of labor, in order to ascertain by the degree to which the head has entered the pelvis whether there be any disproportion or not. If there is much liquor amnii, and the child is very movable, we may expect malposition, and we should watch that we have the head well into the brim before the membranes rupture. The same may be said of prolapse of the cord. Having determined the position of the child, we find the auscultation of the fœtal heart very much easier.

Next as to the third stage of labor. As soon as the child's head is born, the hand is placed on the fundus of the uterus, the ulnar side looking towards the vertebral column, the palmar towards the axis of the uterus. The child's eyes are then carefully wiped, and a finger passed into the vagina to see if the cord could be around the child's neck. If the uterus does not expel the child, or it should make any exertion at respiration, pressure is made on the uterus, which is generally sufficient to cause the expulsion of the child. This subject received considerable attention.

Following down the uterus with the hand as the fœtus is being born, and keeping up a pressure until the placenta is expelled and the binder applied, has been the course pursued in the Dublin Lying-In Hospital since the membership of Joseph Clarke (1786–1793), and is now almost universally followed by all educated practitioners.—(McClintock's edition of Smellie's "Midwifery.")

On looking over Dr. Charles Johnson's ward-book bearing date of 1848 there is seen after numerous cases the terse statement, "Placenta pressed out." This was such common practice as to need no further explanation. If we consult Spiegelberg we will find that he accurately discriminates between the Dublin method and the then lately-introduced method of Credé, and gives his verdict entirely in favor of the former. Schroeder also accurately describes the two methods, and adopts entirely the Dublin method. We have, then, the curious fact that whereas in Germany the highest authorities are in favor of the Dublin method, in the latest English textbooks the writers recommend Credé's method,—or, rather, he would say, while describing and recommending the Dublin method they call it Credé's. As an Irishman, and the present Master of the Rotunda Hospital, he could not but hope that after this meeting of the British Medical Association this mistake may be corrected, and in the future the method may be known after the term in which it first saw light, as the "Dublin method."

The President then devoted some few words to the bimanual examination, strongly favoring the dorsal as compared with the lateral position. Such assertions as that this position was brutal or indecent he strongly denied.

Dr. M. Q. McCallahan, of Brailsford, read a paper on

A MONTH'S ABDOMINAL SECTIONS BY MR. LAWSON TAIT.

This consisted of a brief report of thirty-five abdominal sections, of course all recovering,—some of them almost snatched from the grave. Several were done for septicæmia.

Mr. Tait, who was present, said that the reports just read would show how he selected his cases. This cry about the selection of cases is an absolute falsehood. One case reported here was one he would certainly have been excused from operating. The woman was brought in in a state of collapse, almost dead. He had done three hundred laparotomies, with but two deaths, and he did not care to add another. He confessed that it was a temptation to refuse, but thought he must give the woman a chance for her life, slight as it might be. The result was wonderful. Suppose some one of our "tramp visitors" had come along and seen this case. He would have gone away, saying, "Lawson Tait is the most reckless operator I ever saw."

Dr. Robert Barnes, of London, expressed unqualified admiration of Mr. Tait and his results. He thought the surgery of the abdomen and that of the brain were epochs in surgery. He was glad to know that they were British productions, and that we are not indebted for them to the Germans.

Several other speeches laudatory of Mr. Tait and his methods were made.

A paper was read by Dr. Apostoli, Professor of Gynæcology and Electro-Therapeutics in Paris, in the Section of Obstetrics and Gynæcology, on his method of

ELECTRICAL TREATMENT OF FIBROID TUMORS OF THE UTERUS.

On account of the insecurity of surgical measures and the insufficiency of therapeutics, the doctor had been led to search for a method free from these evils. He had founded a method which he termed "Galvano-Chemical Cauterization of the Uterus." Electricity till now had not given the results hoped for, because it had been used in a vague and indefinite manner. By his method we have precision, energy, better localization, and thorough control. In bleeding fibroids he had come to consider the positive pole the medicament *par excellence*.

From galvano-puncture he feared bad results in the hands of the careless and uninstructed. He insisted upon the following precautions: absolute and regular antiseptic irrigation of the vagina after each operation; the punctures should be made with a small trocar or a needle, and should not exceed two centimetres in depth; they should be made in the most prominent part of the tumor, if possible in the posterior cul-de-sac; puncture should be made without a speculum; pulsation should be looked for, thus avoiding large vessels, and hemorrhage should be promptly stopped.

At the end of the paper he gave a statistical statement of his results:

"From July, 1882, to July, 1887, I have had under my care 278 patients with fibromas or hypertrophy of the uterus in some manifest degree, upon whom I have used 4246 applications of currents of electricity. The patients and operations may be thus classified:

"I. Clinique: 186 patients and 2347 operations,—1433 galvano-cauterizations, positive, intra-uterine; 593 galvano-cauterizations, negative, intra-uterine; 321 galvano-punctures, negative, vaginal.

"II. Private: 92 patients, 1899 operations,—1085 galvano-cauterizations, positive, intra-uterine; 746 galvano-cauterizations, negative, intra-uterine; 68 galvano-punctures, negative, vaginal.

"As I said before, I do not wish to convey the impression that all these patients have been cured. It is not so, for the reason that some of them have not persevered to the end, especially in the clinique, the attendance hav-

ing been discontinued upon the first feeling of amendment. But I can affirm that, where there has been no negligence, ninety-five times out of one hundred permanent benefit has been acknowledged. I may also predict that, if adopted in its integrity and worked out as it should be, the mortality henceforward will be nothing. The following is a report which gives occasion for melancholy comparison. Among the patients who had not the will to let me finish the work begun, and whose impatience led them voluntarily to seek the removal of their tumors by excision, seven put themselves into the hands of our most eminent surgeons, and not one of the seven recovered from the operation. Comment on this would be superfluous."

He said, in conclusion, "One word in parting. Men and their labors can in general only find their proper level and value through the esteem of their associates and the way in which their work is publicly accepted. If my method ever meets with the confidence of the profession (speaking now of England), it will be mainly due to your illustrious countryman, Sir Spencer Wells, who was one of the first to extend to me the benefit of his experience and authority, and to his learned friend, Dr. Woodman Webb, whose name will ever be coupled with its introduction and diffusion. It would be injustice were I not also to refer to the honor such distinguished gynæcologists as the Keiths (father and son), Playfair, Savage, Elder, and others have done me by their visits and the encouragement given me by their approbation. I cordially thank all who are present, and assure you that the best recompense of the work of my life will be to find many of you becoming my followers."

NOTES AND QUERIES.

COMMONWEALTH OF PENNSYLVANIA.

STATE BOARD OF HEALTH.

EXECUTIVE OFFICE, 1532 PINE STREET,
PHILADELPHIA, September 1, 1887.

A special meeting of the State Board of Health was held on Thursday, September 1, 1887, at the Executive Office, No. 1532 Pine Street, Philadelphia, to take action in reference to the death of the late President of the Board, Dr. Edward William Germer, of Erie, when the following resolutions were adopted:

Resolved, That this Board has heard with profound regret of the decease of its valued fellow-member and late President, Dr. Edward William Germer.

Resolved, That in a thorough and intelligent understanding of the principles of state hygiene, learned at the feet of Europe's earliest teacher in this most important branch of medical science, he had few equals, and in untiring energy, courage, and self-devotion in their practical applications in times of public danger no superior.

Resolved, That while the Board, in its official capacity, has lost an able, wise, and faithful member, whose whole energies were devoted to the good of the people, as individuals we mourn the departure of one whose endearing social qualities and warm emotional nature made him a delightful companion and a true friend.

Resolved, That copies of these resolutions be forwarded to the daily and medical press, and that a copy be sent to the bereaved family.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 4, 1887, TO SEPTEMBER 10, 1887.

LIEUTENANT-COLONEL JOSEPH R. SMITH, SURGEON.—Ordered to report in person to the Surgeon-General of the army on September 2, 1887, on business connected with the public service, and on completion thereof to return to his proper station. Par. 9, S. O. 198, A. G. O., August 26, 1887.

MAJOR C. C. BYRNE, SURGEON.—Detailed as a member of the Army Retiring Board in Washington City, *vice* Captain Washington Matthews, Assistant-Surgeon, relieved. Par. 2, S. O. 208, A. G. O., September 7, 1887.

MAJOR R. M. O'REILLY, SURGEON.—Ordered to proceed to Fort Niagara, New York, on public business, and upon completion thereof to return to his proper station, Washington, D.C. Par. 10, S. O. 205, A. G. O., September 3, 1887.

CAPTAIN H. O. PERLEY, ASSISTANT-SURGEON.—Ordered to accompany battalion of the Twenty-third Infantry from Fort Wayne, Michigan, to Chicago, to participate in the International Military Encampment to be held in that city in October next. Par. 1, S. O. 191, Headquarters Division of the Atlantic, September 8, 1887.

FIRST-LIEUTENANT W. B. BANISTER, ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for extension of one month, to take effect upon arrival at Fort Lowell of Assistant-Surgeon J. B. Girard. Par. 4, S. O. 91, Headquarters Department of Arizona, August 29, 1887.

FIRST-LIEUTENANT WILLIAM N. SUTER, ASSISTANT-SURGEON.—Ordered to accompany Battery "E," Third Artillery, from Washington Barracks, D.C., to Philadelphia, on the 14th instant, to participate in the military parade during the celebration of the centennial of the adoption of the Constitution, September 15, 16, and 17, 1887. Par. 3, S. O. 191, Headquarters Division of the Atlantic, September 8, 1887.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U.S. NAVY FOR THE WEEK ENDING SEPTEMBER 3, 1887.

MEDICAL-DIRECTOR RICHARD C. DEAN.—Detached from duty as member of Examining and Retiring Boards, and to hospital at Chelsea, Massachusetts.

MEDICAL-DIRECTOR GEORGE PECK.—Orders as delegate to International Medical Congress revoked.

SURGEON M. H. SIMONS.—Detached from the "Constellation," and to the Naval Academy.

SURGEON B. F. ROGERS.—Detached from marine rendezvous, New York, and to the "Alliance."

ASSISTANT-SURGEON JAMES G. FIELD.—Detached from the "Vermont," and to marine rendezvous, New York.

ASSISTANT-SURGEON C. P. HENRY.—Ordered to the "Ossipee."

PASSED ASSISTANT-SURGEON G. P. LUMSDEN.—To the "Boston."

ASSISTANT-SURGEON LOUIS W. ATLEE.—Restored to duty.

There have been no changes in the Medical Corps of the Navy for the week ending September 10, 1887.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U.S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDING SEPTEMBER 10, 1887.

SAWTELLE, H. W., SURGEON.—Granted leave of absence for fifteen days, August 31, 1887.

CARMICHAEL, D. A., PASSED ASSISTANT-SURGEON.—Granted leave of absence for thirty days, September 5, 1887.

FATTIC, J. B., ASSISTANT-SURGEON.—Ordered to Cairo, Illinois, for temporary duty, September 6, 1887.

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